

ES 36 A

The Bulletin



of the Amateur Entomologists' Society

Volume 70 • Number 494

February 2011

NATURAL
HISTORY MUSEUM

31 MAR 2011

PRESENTED
ENTOM LIBRARY



ISSN 0266-836X

Editors: Dr P. Wilkins & Paul Sokoloff



000174478



Founded in 1935

The AES • P.O. Box 8774 • London • SW7 5ZG

<http://www.amentsoc.org>

Officers of the Society

<i>President:</i>	Robin Wootton
<i>Secretary:</i>	Dafydd Lewis
<i>Treasurer:</i>	Peter May
<i>Acting Registrar:</i>	Dafydd Lewis
<i>Bulletin Editor:</i>	Phil Wilkins/Paul Sokoloff
<i>General Editor:</i>	Jacqueline Ruffle
<i>Advertising Secretary:</i>	Peter Hodge
<i>Exhibition Secretary:</i>	Wayne Jarvis
<i>Youth Secretary:</i>	Kieren Pitts
<i>Conservation Secretary:</i>	David Lonsdale
<i>Webmaster:</i>	Kieren Pitts
<i>ICN Editor:</i>	David Lonsdale
<i>Wants & Exchange:</i>	Peter May

THE AES WORKS TO PROMOTE AND DISSEMINATE ENTOMOLOGICAL KNOWLEDGE AND TO ENCOURAGE AN INTEREST IN ENTOMOLOGY AMONG THE YOUNGER GENERATION.

BULLETIN ADVERTISING RATES:

Advertising in the AES *Bulletin* is a cost effective way of reaching all AES members and many others who benefit from institutional subscriptions.

Full page £75 for each advert or £375 for six adverts in the same year.

Half page £50 for each advert or £250 for six adverts in the same year.

Quarter page £30 for each advert or £150 for six adverts in the same year.

NOTICE

It is to be distinctly understood that all views, opinions, or theories, expressed in the pages of this Journal are solely those of the author(s) concerned. All announcements of meetings, financial grants offered or sought, requests for help or information, are accepted as bona fide. Neither the Editor, the Officers and Council of the Society, nor its Trustees, can be held responsible for any loss, embarrassment or injury that might be sustained by reliance thereon.

Worldwide Butterflies www.wwb.co.uk



Now
available
alone or
with the
**Moonlander
Moth Trap**

The new Goodden Light 12v for use in remote areas

By studying the light output from MV, Robert Goodden has developed this sophisticated portable unit with aspects in common with MV, using so little power that it runs all night on a 7.5Ah battery. It attracts insects much better than actinic lights, even powerful ones requiring heavy batteries. **Rainproof and safe.** An in-line photoswitch puts the light on and off automatically. With this switch the unit can be used vertically or horizontally in any moth trap.

See www.wwb.co.uk for prices and more.



Moonlander Moth trap

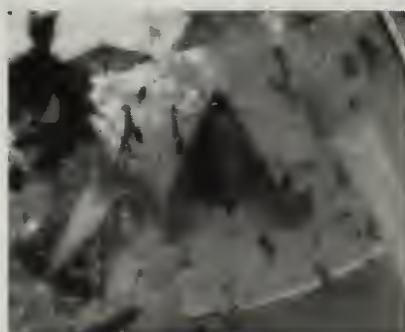
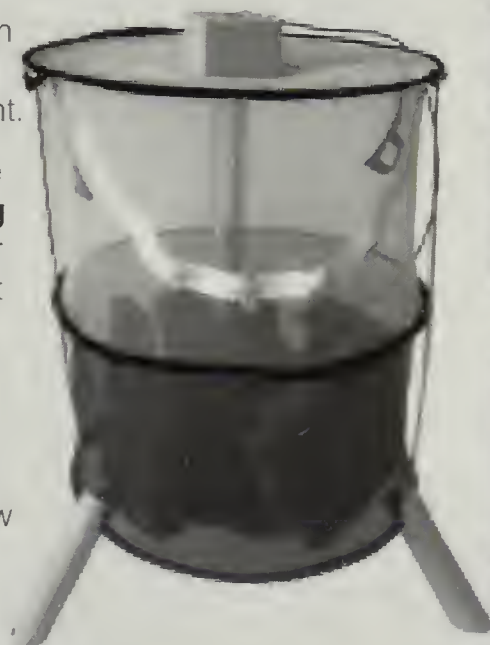
Folds totally flat and is contained in a convenient slim shoulder bag. Very lightweight.

The Moonlander turns the principle of moth trapping **upside down!** Moths enter from the bottom and cannot escape through the top. **Works as sheet and trap combined.**

Better than traditional egg boxes, moths prefer the new **reticulated foam moth shelters** and cone.

The Moonlander is now available **without electrics, or with Battery, Mains or BOTH.**

See the options on www.wwb.co.uk



No escape through the top



Both trap and light are total innovations by Robert Goodden.

They are tried and tested in Europe and the tropics. In good conditions the results are spectacular.

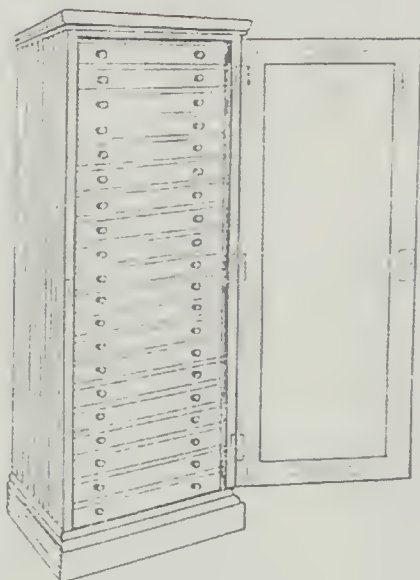
Worldwide Butterflies website offers **Livestock and Equipment for breeding and study. Specimens for specialist collectors will be added as available.** The system enables you to see exactly what is currently available as the season changes. From time to time there are special **Sale Offers** of equipment, books, livestock and specimens - an ever changing situation.

www.wwb.co.uk Add it to your **Favorites** - check it regularly.

ATROPOS ANTIQUES*

PURVEYORS OF FINE COLLECTOR'S CABINETS

*Many of you will have met us at the AES London Fair
where we regularly show entomological cabinets for sale*



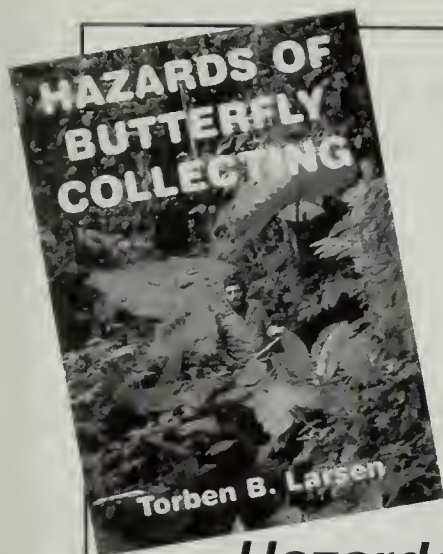
- We are specialist dealers in fine collector's cabinets.
- We can offer a choice of at least 30 cabinets, varying in purpose, construction, quality and price.
- We can supply both restored and un-restored cabinets and will undertake to restore and paper cabinets for clients.
- We are always interested in the purchase or exchange of cabinets, with or without a collection.
- Callers to our showrooms are always welcome by appointment.
- We offer a specialist collection and delivery service throughout the UK and have full expertise in the safe transportation of cabinets and collections.

We now have a dedicated cabinet showroom in Hartland, North Devon, and are happy to receive visitors to view the stock of over sixty cabinets including all the famous makers names. Please telephone or e-mail if you wish to call. Hartland is famous for it's coastline and dramatic scenery and was one of the last known haunts of the Large Blue.

We are very keen to buy whole insect collections and collecting paraphernalia ancient or modern. Please contact George Morgan by telephone or e-mail.

**George Morgan
97, West Street, Hartland, N. Devon EX39 6BQ
T: 01237-441205/984 M: 07973 302190
E-mail: george@atropos.wanadoo.co.uk**

* We are an independent dealership of 30 years standing and have no association with any similarly named business



SPECIAL OFFER

£7.50 each

(inc. UK p&p)

£9.50 each (overseas)



Hazards of Butterfly Collecting

by Torben B. Larsen

Rearing Stick and Leaf Insects

by Ronald N. Baxter

ORDER YOUR COPY NOW FROM

Cravitz Printing Company Limited, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Tel: (01277) 224610 • Fax: (01277) 262815 • E-mail: CravitzPrinting@btconnect.com

Bulletin Cover



The photograph on this month's cover is the lacewing *Drepanepteryx phalaenoides* (Neuroptera: Hemerobiidae).

This large and striking lacewing has a body length of about 15mm. Its brownish colour and peculiar shape suggest that it mimics a dead leaf, a phenomenon known as procrypsis. It is not often encountered in the wild although it seems to be fairly widespread in the UK, with strongholds in the South-east and Northern England. It seems to prefer deciduous woodlands with mature oak trees.

This specimen was attracted to a mercury-vapour light in North-west Kent, and photographed by Paul Sokoloff.

**NATURAL
HISTORY MUSEUM**

31 MAR 2011

**PRESENTED
ENTOM LIBRARY**



ARE YOU MISSING OUT? THE ENTOMOLOGIST'S RECORD and Journal of Variation

Publishes notes, observations, articles and reviews, mainly on the Lepidoptera and Coleoptera of the British Isles and Europe.

Founded in 1890 by J. W. Tutt, and still going strong, we publish six issues a year – alternating with the *AES Bulletin*. This means there is now a first class entomological journal available every month of the year!

Our subscription price is £25 per year. If you would like to see a specimen copy, please send your name and address, and a couple of second class stamps to cover postage to:

The Editor, 14 West Road, Bishops Stortford, Hertfordshire CM23 2QP.

Write now! You never know what you could be missing.

The Entomologist's Record is a publication of the Amateur Entomologists' Society.

To ensure high standards of production we use Cravitz Printing Company.



Ian Johnson Natural History Books

(Pemberley Books)

Specialist in *Entomology* and related subjects
Also *Zoology*, *Ornithology*, *Botany* etc.

- CATALOGUES – Second-hand, Antiquarian and New books – free catalogues available on request.
- SPECIALIST BOOKSHOP at Richings Park, Iver, just to the West of London – easy to reach by car or train. Visitors are welcome to visit and view our stock, but please telephone first to confirm opening times.
 - * *By car*: only 10 minutes drive from the M25 via the M4 (Junction 5), or M40 (Junction 1). 15 minutes from Heathrow Airport.
 - * *By train*: 20 minutes from London Paddington to Iver Station on the Paddington-Slough Thames Trains service (2 trains every hour). We are 1 minute's walk from Iver Station.
- WEBSITE – view our stock on our website: www.pemberleybooks.com.
- BOOKS BOUGHT – We are always interested in purchasing books in our specialist field, particularly antiquarian, academic and scholarly works on insects and other invertebrates.

18 BATHURST WALK, RICHINGS PARK, IVER, BUCKS SL0 9AZ

Tel: 01753 631114 / Fax: 01753 631115 • e-mail: ian.johnson@pemberleybooks.com

The Bulletin

of the Amateur Entomologists' Society

Volume 70 • Number 494

February 2011

Editorial

Welcome to the first issue of the *Bulletin* for 2011. Martin Hough has stepped down from his role as co-editor, and I have taken over in the short term. We would like to record our thanks to Martin for all the work he has put in making the *Bulletin* a success. Phil Wilkins remains our chief editor.

February always seems a bit of a strange time for entomologists. On the down side there is the realisation that all those winter jobs such as repairing the breeding cages, cleaning the moth trap, sending records to County recorders, writing that article for the *Bulletin* and tidying up the shed or bug-room remain undone (at least in the Editor's household). On the positive side, Winter Moths have disappeared from the porch; the Hazel in the garden is covered in fresh catkins; some birds are becoming amorous and small swarms of tiny flies appear whenever the sun shines. Every warm day brings the hope that a hibernating butterfly will be tempted to venture out and sun itself right in front of you – even if you then realise that the camera is still packed away for the winter!

So maybe as the entomological year begins to stir it is time to think of an entomological New Year resolution? With all the gloom around us, be it from the effects of climate change or the impact of government spending cuts on the environment, maybe it is time for each of us to think of making a positive contribution, however small, to “the cause”. Each of us can make an impact though sharing experiences, educating others and supporting individuals and organisations who want to promote wildlife. The AES organises a range of events throughout the year, and whilst most members are aware of our hugely successful Annual Exhibition, most, I suspect, are aware of the Members' Days through reports in the *Bulletin*. These days have been a great success and the museums and other organisations who have hosted these events have themselves made a great effort to ensure the days are interesting and entertaining. Although we always try to ensure that our younger members are catered for, there is usually something for everyone. Look out for announcements in the *Bulletin* or on the AES website. The more members we have attending, the more successful an



event becomes. The AES is frequently asked to support local events by providing a stall and maybe some exhibits or livestock. These can range from small events, for example focussed on a group of schools, to major outdoor events. We always try to say yes to these requests, but it is usually a small group of stalwarts who attend these events and because of a shortage of people, or the problems of travelling great distances we cannot attend them all. We are thinking of how we can involve our members in supporting the events that Council members cannot attend.

I hear you shudder at the thought of “educating others”. Not my field, I am not an expert, far too difficult? Well, no. Simply raising awareness amongst others can have an enormous impact. Showing children living insects can create a lasting impression; persuading a neighbour not to spray his plants too enthusiastically or squash a caterpillar can lead to enlightenment; and other naturalists can be made to “see” insects. I have on many occasions joined botanists, bird-watchers or general naturalists on a walk or foray. Take a net and some clear pots. Put up with the odd silly question: “.... are you collecting butterflies?” Catch an insect! A moth, wasp, beetle, grasshopper, hover-fly, bee – it does not matter – it’s amazing how quickly you can spark interest and enthusiasm. I do have to confess to having limited success with bird-watchers!

Finally, what about sharing experiences? If you have read this far in an editorial you must have some interest in entomology and what other people think. Maybe others would be interested in what you think, your hints and tips, your experiences? The AES *Bulletin*, the Bug Club Magazine and the *Entomologist's Record* are all there for members to share experiences and to help and interest others. If members did not contribute, there would be no *Bulletin*! As you read the *Bulletin* ask yourself if you could write something like this? A short note; an observation; a longer article; a photograph? If so, why not do it? Don't worry if you think your spelling or grammar is not up to it – editors are there to help you. There are hints for writing on the AES website (www.amentsoc.org). Click the “publications” tab, then the magazine you are interested in. On the left-hand side click “Author guidelines” and you will find all the information you need. The *Entomologist's Record* has a separate website which can be found by clicking the appropriate tab.

News

New species of insect are being added to the British list all the time. Many of these are tiny insects from less well-studied groups, and



others are accidental imports or immigrants. We have not seen a new species of caddis fly in the UK since 1965, so it is great to report that another species has been discovered. The species is *Synagapetus dubitans*, and was found by Stuart Crofts, who runs the Adult Caddisfly Occurrence Scheme, in a small stream flowing through woodland near Masham, North Yorkshire. Although finds such as this are of great interest to entomologists, they also catch the eye of enthusiasts of fly fishing. New aquatic insects provide the opportunity to design different lures for fishermen to use, although as the new caddis is around 5mm in length I suspect our fish will be safe for a bit longer.

In recent years there has been a lot of concern expressed about the serious decline in the number of bees, particularly bumble bees, and the potential effects of the decline in pollinating insects in general on British agriculture. There have been many attempts to explain this phenomenon and in recent time suspicion has fallen on a group of pesticides containing chemicals called neonicotinoids, which are licensed for use in the UK. Despite some evidence of the damage these chemicals cause to wildlife, and requests for action by the organisation Buglife (see Invertebrate Conservation News No. 60 (Oct. 2009), DEFRA maintains that they do not pose an unacceptable risk if used correctly. We have all read in the national newspapers about the publication of confidential material by the organisation Wikileaks. Not a lot of this material has been of entomological interest but someone else has leaked a recent confidential memorandum from the United States Environmental Protection Agency on the potentially harmful effects of neonicotinoids. It is pretty technical, but if you want you can read it at: (http://www.panna.org/sites/default/files/Memo_Nov2010_Clothianidino.pdf)

As a result of this, Buglife renewed its campaign to raise awareness of the dangers of these chemicals by asking people to write to their Member of Parliament asking them to put pressure on the Minister responsible for licensing pesticides. This initiative seems to have been very successful as there were 42 MPs who signed up for the early day motion *Impact of Neonicotinoid Pesticides on Bees and other Invertebrates* of which seven MPs spoke on the topic, seemingly taking it seriously. The British Bee Keepers' Association which, rather puzzlingly, had taken the position that there was no cause for concern is now calling for an urgent review.

Another gloomy fact of life is the impending spending cuts imposed by the current UK Government. These cuts are bound to affect those organisations involved in wildlife conservation, but one money-raising



scheme is causing concern in many quarters – the plan to sell off almost all of the publicly-owned woodlands and forest in England. It will particularly have a direct impact on land owned by organisations such as the Forestry Commission. In days gone by, the Forestry Commission was a much disliked organisation, sponsoring (although for good reasons) the planting of huge areas with alien conifer species, and discouraging entomologists from visiting forests. In recent years, the organisation has transformed itself with a far more open policy, creation of public walks and nature trails, information centres, a focus on conservation and the increased planting of native broad-leaved trees. All this is potentially under threat if our forests are sold off to private organisations. It seems unlikely that private conservation organisations would have the funds to purchase these important woodlands, and private developers . . . well, we leave it to your imagination. None of these plans are finalised yet. There has been much high-profile opposition to the plans, and there is, at the time of writing, a public consultation beginning, but this is a story we should all keep our eyes on.

Paul Sokoloff



SOCIETY MATTERS

THANK YOU: We are grateful to all those members who have renewed their memberships on time, and especially to those who kindly included a donation with their payment. Every little helps towards the work of the society (and to keep subscription levels as low as possible!).

Members might like to be reminded that donations can be 'earmarked' for particular purposes, and that currently donations to the Anson Fund (which allows us to award prizes to Bug Club members for articles and exhibits) would be particularly welcome.

NEW AFFILIATION

The AES is now affiliated to the Invicta Arachnid Club (website: www.invicta-arachnid-club.org.uk) which is based in Kent.



'BIG SOCIETY'

If any members can help to promote the Society at events they are attending please can they get in touch with the Hon. Secretary, either by post or email (secretary@amentsoc.org).

WANTS & EXCHANGE NEWSLETTER – UPDATE

Progress has been made with setting up the new AES Newsletter, which we hope to launch by the time the June issue of the *Bulletin* is published.

The Newsletter is designed to be sent to members via email. Members who do not have an email address will be able to receive a printed version of the Newsletter by post. This new arrangement will allow the Newsletter to contain information additional to that contained in the traditional *Wants & Exchange List*, and it will be more timely. Full details on how to sign up for the Newsletter will be made available when the time comes.

The Newsletter is the first of two projects aimed at improving communication within the Society and between members, initiated by the Governance Committee. The second project will explore the possibility of setting up Special Interest Groups, but we will not have the resources to explore and progress that initiative until after the Newsletter is firmly up and running.

NOTICE OF AES ANNUAL GENERAL MEETING

This year's AGM will take place at 12:00 midday on 30th April at the Butterfly World Project, Miriam Lane, Off Noke Lane, Chiswell Green, Herts AL2 3NY, immediately prior to our Members' Day at the same venue.

Our President, Dr Robin Wootton, will step down at this AGM. Nominations are invited for President of the Society for the period 2011-2012.

The following Council members will retire by rotation: David Humphries, Dafydd Lewis and Peter May. Dafydd Lewis and Peter May have expressed their willingness to remain on Council if duly nominated and elected. Paul Sokoloff (AES Custodial Trustee) has also expressed his willingness to be nominated in addition as a full member of Council.

Council members standing for election / re-election or as Officers of the Society at the 2010 AGM are therefore as follows: Secretary: Dafydd



Lewis; Treasurer: Peter May; Conservation Secretary: David Lonsdale; Bulletin Editor: Phil Wilkins; General Editor: Jacqueline Ruffle; Exhibition Secretary: Wayne Jarvis; Advertising Secretary: Peter Hodge; ICN Editor: David Lonsdale; Wants & Exchange Editor: Peter May; Youth Secretary: Kieren Pitts; Bug Club Magazine Editors: Dafydd Lewis, Kieren Pitts; Webmaster: Kieren Pitts; Council Member: Paul Sokoloff.

Members of Council are also Charitable Trustees of the Society. There are currently a number of trustee vacancies, and the role of Habitat Conservation Officer is vacant. **Nominations for Council, including anyone wishing to contest any of the above posts, are invited before or at the AGM.** Nominations should be submitted by two members with the prior consent of the nominee.

DATA PROTECTION ACT

All members should please note that any personal information supplied to the Society is treated in accord with the requirements of current data protection legislation and will be used only for the purposes of administering the Society. We will not divulge personal information to any third party unless legally obliged to do so. It is technically possible for us to generate membership lists but there are no plans to do so during this membership year.

AES EVENTS IN THE NEW YEAR

Saturday 30th April 2011: AES Members' Day & AGM

Our Members' Day will take place at Butterfly World near St Albans, Hertfordshire, commencing at midday with a brief AGM. This new venue is next door to the Royal Entomological Society HQ. The full address is: Butterfly World Project, Miriam Lane, Off Noke Lane, Chiswell Green, Herts, AL2 3NY. (Miriam Lane is named after the entomologist Dame Miriam Rothschild, and the Butterfly World Project is within walking distance of the rooms of the Royal Entomological Society, of which Dame Miriam was a past president).

Following a brief AGM we have a timetable of interesting speakers, including Dr Martin Hall who will deliver the Annual Tesch Lecture, on the subject of forensic entomology. Clive Farrell, founder of the Butterfly World Project, will tell us all about the trials and tribulations of constructing the largest butterfly attraction in the world, and will



take us around the site. Professor Stuart Reynolds of Bath University will present a talk about the Royal Entomological Society and Dr Sarah Dewhurst from the BBSRC will deliver a talk about her research into sex pheromones and plant defences in aphids.

We will have the usual display stands present, from the AES and our affiliates, and Dr David Bellamy will be there to explain entomological matters to our younger members. Food will be available, and we do hope that you can all come along.

OTHER EVENTS

AES events are organised on a rolling basis (i.e. we have no fixed annual calendar of events) and are publicised in good time to members through our journals and on our main website www.amentsoc.org.

One of our forthcoming outreach events will be at the Annual Exhibition of the British Tarantula Society in Coseley, West Midlands, on 22nd May. If any local members would like to help out on our table at this event please get in touch with the AES Secretary.



How I became an Entomological Artist

by Cath Hodsman (14128)

The Paddocks, 28 Dr. Brown's Road, Minchinthampton, Stroud, Glos.

I have always been passionate about nature. My Dad was fascinated by the natural world. He was a keen fisherman. He would tell me, my brother and sister his numerous fishing stories (including the ones that got away!!). Also, as a child he was an avid collector of birds' eggs (something we wouldn't dream of doing today, of course!). He and his mates would venture into the countryside surrounding North Bristol on egg-hunting expeditions. He would take great pride in showing me his Collins Pocket Guides on British Birds and their Eggs. I would pore over these tiny books. I was fascinated by the variety of species of birds and in the beauty of their eggs.

As a family, we would watch Jacques Cousteau and David Attenborough on the telly. Dad and I would be totally mesmerised at the new worlds that these programmes opened. He loved sharks, a passion which he passed onto me. To this day, I can't resist naming each species of shark before the presenter does, when watching programmes about the ocean!

As I grew up, I discovered that I loved art. At that time, my subject matter was usually various members of Duran Duran! Despite this, I successfully obtained an A level in Fine Art, but felt that, as a career choice, it was a little too risky, so I followed a more traditional career path in the financial sector and finally, in Higher Education, as a European Officer – a job I loved. I travelled through much of Europe and met and worked with some wonderful people from many countries.

After the birth of my youngest child, I gave up full time work. At this time, my attention was drawn again to nature. My family home is in the Cotswolds, Gloucestershire, where life is distinctively rural and beautifully wild. In this same vein, my husband and I became avid horticulturalists. Every spare minute of our free time was filled with discussing, designing or working in the garden.

From the start, we both strongly believed in the organic approach. We wanted to maintain a natural ecological balance in the garden. We never used pesticides of any kind and instead encouraged natural predators into the garden to control our greenfly, slugs and snails. Regular composting also meant that nothing went to waste and everything was fed back into the soil.



Of course, if you have healthy plants, you attract healthy wildlife and soon our garden resembled a mini Serengeti!! It literally teemed with life. We fed foxes, badgers, birds and hedgehogs. We installed a small pond to encourage frogs and toads, but the animals that fascinated me most were the insects. The garden became inhabited by an incredible array of fantastic minibeasts... bees of all kinds, beetles of all shapes, dragonflies of all sizes and ladybirds of all colours. I became hooked on studying these incredible beings. I watched their physical battles with each other, their breeding, feeding, flying and crawling – I was transfixed! My husband and I realised that, in a relatively short period of time, we could have a huge, positive effect on our environment.

Wanting to capture this beauty, I got my watercolours out of mothballs. I bought various bug-catching devices, including pooters, bug-catching pods, magnifying glasses, nets and other wondrous contraptions. In the garden, I could examine in much more detail the legs of millipedes, the eyes of spiders or the lovely fur on bumble bees.

This fascination has now grown into a full time job. I paint on a daily basis. I am inspired by the work of fellow like-minded artists, such as



Wing of the Emperor Moth.



Richard Lewington, but particularly by the work of John Curtis, the great Victorian pioneering entomologist who recorded, in beautiful, painstaking detail, (in many cases for the first time) the indigenous insects of Britain, often with the plants that they feed on. I love his scientific approach – his desire to capture as much detail as possible. A passion I share. I always endeavour to record as many tiny details in the anatomy of each subject.

John Curtis saw his job as a scientific recorder of insects. In the 21st Century, we know much more about the science side, but our recording has taken on a different meaning. I see my job as an entomological and botanical artist as promoting and educating others about the importance of insects in all of our lives. We all know about the decline of many of our native bees, butterflies and moths, but there are still those who do not understand the significance of insects. To many, they are at best to be ignored, or at worst to be squashed under foot. Entomologists understand that conservation and preservation have to start with the tiniest life forms. If you protect insects, then, as night follows day, all life will be protected.

I hope that my art can go a little way to promoting these incredible animals and to helping to secure a better quality and richness of life for future generations.

If anyone is interested in my work, I have a couple of exhibitions coming up this year [these are in the events calendar on the AES website]. I am exhibiting with Sue Townsend, an impressionist artist, over the Easter weekend in Tetbury Market House, Gloucester from 22nd – 25th April. I also have a two week solo exhibition soon after, at The Blue Door Art Gallery, Nailsworth, Glos from 3rd – 14th May. It would be lovely to meet and have a chat with fellow AES members. In addition, I am also lucky enough to sell my prints through organisations such as Nature in Art, Twigworth, Glos; The Museum in the Park, Stratford and Cheltenham Museum and Art Gallery.

If you would like to contact me, you can on cathhodsman@talktalk.net. Examples of some of my work can also be seen on the Tetbury Art Society web site.





So who was John Curtis?

by Paul Sokoloff (4456)

4 Steep Close, Orpington, Kent BR6 6DS.

I was very interested to read Cath Hodsman's article in this edition of the *Bulletin* on her inspirations for becoming an entomological illustrator. She chose John Curtis as one of her "models", and that set me to wondering just who this man was. One often hears the names of long-gone, famous entomologists in books and articles or perhaps of the author of an insect you are looking at (one example is the Blue-bordered Carpet: *Plemyria rubiginata plumbata* (Curtis, 1837)). You occasionally see a faded photograph of an impressive gentleman in formal clothes (and often with a huge beard) but, other than thinking that this could be someone from your family archives, you quickly pass on to more interesting activities. However, these were real people, often working at the leading edge of their subject – sometimes in their spare time, interestingly, with many parsons amongst them, although it is probably better not to comment on that. I might sweat and scratch my head to produce a couple of pages for the *Bulletin* but some of these early entomologists produced enormous amounts of printed material. The great J.W. Tutt, who founded our sister magazine, *The Entomologist's Record and Journal of Variation*, in 1890, wrote a nine-volume book on the British Lepidoptera (it was still unfinished at the time of his death) which ran to over 4500 pages in a typeface much smaller than the one you are reading at the moment. (He was a Head Teacher and had a small beard!!). But what about John Curtis?

The first thing to say is that there was, if I can coin a collective noun, a "confusion of Curtises". All were active between mid 1700s and mid 1800s, all, at some point, were entomologists and all were expert illustrators. Perhaps the most famous Curtis was William Curtis, born in 1746. His first book, published in 1771, was on entomology, and was called *Instructions for collecting and preserving insects, particularly butterflies and moths*. After that, he concentrated on botanical illustration and he was remarkably good at this. His most famous work was the lavishly illustrated *Flora Londinensis* first published in 1775 and later he went on to found and illustrate the *Botanical Magazine* in 1787. It is still going today!

The least famous Curtis was Charles, unrelated to William but younger brother to John. We don't know a great deal about him other than that he supplied some of the art work for another famous entomologist, James Francis Stephens (with a huge beard), towards his



monumental publication *Illustrations of British Insects*. The “Curtis confusion” continued as Charles’ elder brother, John was highly critical of Stephens’ work and he and Stephens had a huge public row which lasted for a long time. It sounded great fun, but if it happened today the libel lawyers would have a field day.

At last to John Curtis! He was born in 1791, and his father (another Charles) was an engraver. Sadly his father died when he was quite young and it was his mother, Frances Curtis, who encouraged him to take an interest in natural history and drawing. Although he did have a succession of jobs, he made some money selling insect specimens and made his first breakthrough as an illustrator when he was introduced to two eminent entomologists, William Kirby and William Spence. (Neither had a beard, but to add to the confusion there were three William Kirbys active in entomology at about the same time.) Curtis was commissioned to produce the engravings for the plates in Kirby & Spence’s four-volume work, *An Introduction to Entomology*, first published in 1815.

After that, John Curtis (no beard) found sponsors and patrons to begin his great work *British Entomology; being illustrations and descriptions of the genera of insects found in Great Britain and Ireland*. John had decided to produce the engravings for this work (later the plates were lithographs rather than engravings); each plate would illustrate an insect together with the plant on which it fed; each was to be coloured by hand and there would be a couple of pages of text providing some explanation of the insect figured. The first part was produced in 1823, and even in those days it was very expensive to produce coloured illustrations, particularly as each one had to be painted by hand as colour printing processes were not sufficiently developed for mass production. To overcome this, his *British Entomology* was issued in parts, and the parts were then organised into volumes according to the insect orders that were being illustrated. This was a huge undertaking, and Curtis eventually produced 770 hand coloured plates organised into sixteen volumes. One of his plates, figuring the Kentish Glory moth, is reproduced here, although sadly not in colour. They must be amongst the finest examples of entomological illustration ever produced. Most sets of his work were eventually bound into eight volumes and today they are quite scarce and hugely expensive – you would be unlikely to find a set at under £5000! There were a couple of spin-off books that figured only the insects and not the plants. One was produced for the Coleoptera and another for the Lepidoptera. They were called *The genera of British*



434



Gonimatus kenti Linn. *Syn. Entom.*

The Kentish Glory from Curtis' *British Entomology*.



Coleoptera, transferred from the original figures in 256 plates, published in 1858. A second edition was produced in 1863 but, in the title, *British Coleoptera* was replaced by *British beetles*. Also in 1858, he published *The genera of British Lepidoptera, transferred from the original figures in 193 plates*. Both books were available in plain and hand-coloured versions.

This fantastic work was a huge entomological success even though it was criticised by the bearded Stephens, but financially it was a disaster and Curtis was forced to take on work for others rather than working for himself. He turned his attention to insects of economic importance and published many articles in the *Gardener's chronicle*, which he later edited. It seems, although it is only my impression, that he did not want it to be known he was contributing to a gardening magazine, even though his articles and illustrations were of high quality, and he signed himself "Ruricola". He also published in the *Journal of the Royal Agricultural Society* and other journals, and produced another book, eventually published in 1860, which was a financial success, called *Farm insects*. This contained sixteen detailed, hand-coloured plates.

His engravings were very detailed, and he made many drawings from microscopic preparations. All of this affected his eyesight and by 1856 he was totally blind. He retired in 1857 on a government pension of £150 per year, and eventually died in 1862. After his death, his second wife, Matilda, sold off all his remaining books, collections and drawings. His insect collections were purchased, for a price of £510, by the National Museum of Victoria in Melbourne, Australia. His extensive portfolio of drawings was purchased Walter (later Baron) Rothschild (he had a beard, too) who later bequeathed them to the Natural History Museum in London, where they remain.

So a name from the past, an inspiration to some but unknown to most, hides a real story of talent, opportunity, achievement and not a little sadness in that a great artist and entomologist should lose his eyesight.





Southern Oak Bush-cricket **(*Meconema meridionale* Costa, 1860).** **Orthoptera: Tettigonidae**

by Roger Edmondson

24, Nottingham Road, Bishopston, Bristol BS7 9DH.

I have regularly seen the Southern Oak Bush-cricket in my garden, in Bishopston, Bristol, for a number of years now and, although I had my suspicions, wasn't sure how it had arrived there. The families of both myself and my wife live in Surrey and we make regular trips there. This year I had my first sighting of a nymph on 30th June.

On the morning of 11th July, Martin Evans and I were leaving for Scotland to search for day-flying moths. I woke up at 4am to hear heavy rain pounding down, after a long period of drought. I left home and drove to Martin's house, about three miles away, arriving at 5am. Whilst loading the car, we noticed a penultimate male nymph of the Southern Oak Bush-cricket walking around on the car. It had obviously been washed out of the Laburnum tree at my house by the heavy rain, under which the car was parked. It promptly jumped off my hand into Martin's front garden and disappeared. That was the end of that we supposed.

We drove north on the M5/M6 and stopped after two hours at the Stoke-on-Trent services for coffee at around 7 am. There on the car roof was another Bush-cricket, clinging on for dear life. It had seemed to have stuck itself down to the metal with some genital fluid as well as holding on by its feet. We had driven approximately 150 miles, averaging about 70 mph. I picked it off the roof for a closer look and after a minute or so, it sprang into a London Plane tree in the car park of the service station.

Because our families are from Surrey, I had always assumed that the crickets had arrived inadvertently, on or in the car, from one of our trips up there. I know that this is how they are assumed to have arrived from the continent, having only vestigial wings but I was amazed to realise how tenaciously they could hold on and for so long. I have now seen for myself how they manage this.

If we hadn't found this cricket in the Midlands, Scotland could have had its first record of the Southern Oak Bush-cricket!





The Collectors

by John Woolmer

Fig Tree Cottage, Roecliffe Road, Cropston LE7 7HQ.

Dr Sergius Baker was a serious butterfly collector; he also experimented by trying to obtain unusual variations of wing colour and pattern by some generally unknown stimuli. He had many successes including the famous all black White Admiral called var *nigrina*.

His consuming passion was breeding Purple Emperors and his greatest desire was produce var *iole*. These very rare butterflies have forewings that lack the white bars. This gives a magnificent all purple sheen to the wings of the males. He had got close and had produced a number of varieties which had only a small amount of white on the forewings. These were known as *semi-iole*.

One summer, in early July, he heard down the entomological grapevine that a genuine var *iole* had been spotted in some woods in Northamptonshire. The thought of an *iole* in the wild was much more alluring. It might possibly be caused by a recessive gene. If it could be captured, Sergius could breed with it and perhaps produce many more *iole*. He set out early the next morning with some meat, well infested





with maggots, and which was highly odiferous. He always kept some on hand for such eventualities.

He parked his car well beyond the main entrances and walked, by a quiet almost unknown path, into the woods, carrying his meat and leaning on a stick. The stick was the handle of his butterfly net which had been especially adapted. Inside his ample breast pocket, he had a folded net; in the right pocket of his jacket, he had a large collecting box. He made his way into the wood to the crossing point, where he heard that the *irole* had been seen. He moved a little way off the main ride into an open but rather grassier track. Other collectors, and interested naturalists, were less likely to come down this track as the Emperor was known to descend onto pathways that were covered with stones rather than grass. This was assumed to be because they needed to absorb nutrients from the stones to attain to their sexual maturity.

Sergius found a suitably low branch of a tree and hung his meat up. He also placed a large chunk on the ground. He moved upwind; he had no desire to catch the scent of his bait, particularly when the heat of the midday sun reached it.

He left his collecting equipment carefully hidden behind a tree and went for a long walk. He didn't think any butterflies would appear before nine o'clock. When he returned, he was pleased to see a large male Emperor flying around his meat; another one was settled on the path; its yellow tongue sucking up some of the juices of his second piece. He hadn't expected his trap to be so effective. However, neither butterfly was the much-coveted *irole*.

During the course of the next few hours another eight Emperors visited his site. Of course, he couldn't be certain that they were all different; but his meat was certainly achieving its first objective. It was attracting Emperors but not, as yet, *irole*. He left his post and wandered into the main ride; a bevy of onlookers were surveying an Emperor feeding on the path. The talk was all about the *irole*; no one had seen it that day or apparently for several days previously. Sergius noticed an old rival of his called Ernie Ramsden who was sporting his distinctive ginger beard. Ernie had exhibited a number of *semi-irole* specimens and had often asked Sergius about his work with experimentally producing interesting variations.

Returning to his bait, Sergius noted a steady trickle of visiting Emperors which were arriving at a rate of about one an hour. None were var *irole* and at about four o'clock, Sergius called it a day. He decided to call at the offices of the management of the woodland. When he did, he got some surprising news. The head warden, Mr



Chapple, told Sergius that he, himself, had captured the *iole* in the nearby woods and that he had the insect in captivity at the back of his office. Sergius explained who he was and was pleased that the warden knew of his work. He was taken through to the back of the office where there was a large meshed cage. In a sunny corner; sitting on a tree stump coated with diluted sucrose, *iole* was sunning itself.

Sergius thought fast; he explained to Mr Chapple about his breeding of Emperors and he explained some theoretical genetics which he had learnt from Professor Ford. He said that if he mated var *iole* with a normal female, they would obtain a generation of butterflies which carried the *iole* gene but that it probably wouldn't show up in their wing patterns. If these were cross bred during the next summer; they should produce a generation which was weighted 1:3 *iole* to normal. He demonstrated the simple calculation with a diagram on the back of an envelope.

The warden was duly impressed. He said that no one else knew that he had captured the *iole*. After some thought, he allowed Sergius to take the butterfly home. They agreed to keep in touch and perhaps release some of next year's progeny back into the woods. With some difficulty, Sergius resisted the temptation to pin this magnificent specimen; instead he went to work trying to achieve a mating with one of his captive females. This he did by a technique called hand pairing which he had learnt from another entomological friend. The pairing was successful although the precious wings of *iole* were somewhat damaged by the encounter.

He separated the female from his other females; she laid about sixty eggs on a willow plant growing in a special cage at the bottom of his garden. All went well. The caterpillars appeared to hibernate successfully, which is always the most risky stage of their development. The following spring, he counted about forty caterpillars.

The next summer, the warden came over and viewed the next generation of eighteen males and sixteen females. They all looked perfectly normal; there were no traces of the *iole* aberration on any of them. Sergius explained that that was perfectly in accord with the theory of genetics concerning recessive genes. He also said he didn't need that many insects. The Warden took back ten of each sex and said that he would release them into a distant corner of his territory. It was quite possible that some of them would meet naturally and cross breed. There might be some more *iole* in his woods the next year.

Sergius achieved some matings and a huge number of eggs. Most of these hatched out and survived their winter hibernation. All seemed set



for a very interesting summer. In June, nearly two years after the original drama, some of his caterpillars started to pupate. He had nearly seventy chrysalises hanging from sallow leaves in his special *irole* enclosure. He saw that about half of them were males and so, theoretically, he could hope for about nine *irole* butterflies. He was waiting for them to colour as then he would be able to tell how many, if any, were actually var *irole*.

One night in late June there was terrible storm; an old oak tree at the bottom of the garden was blown down. It fell right across the precious *irole* cage. The debris was considerable. Sergius got some contractors in and got the tree moved. His precious sallows were flattened. He found a few squashed chrysalises. In the end, he collected just four that seemed to have survived the devastation. He saw that three of them were female and just one was a male. When the male chrysalis coloured, it was clear that it was not an *irole*. Sergius was heartbroken. His wonderful experiment had been literally dashed to the ground. He travelled over to the woods to talk to the head Warden. He found that he had died quite suddenly during the previous winter. No one had any idea where he had released the butterflies that Sergius had given him the previous summer. His colleagues said that Fred Chapple was a secretive man and didn't share with them what he was doing.

Sergius stayed in the vicinity of the woods, booking into a Bed & Breakfast for five nights. He went for long walks into the far corners of the woods. On the fourth day, he had an amazing discovery. He found a Purple Emperor feeding on some horse dung. When it opened its wings, he saw that it was an almost perfect *irole* – it had a couple of tiny white spots on other wise uniformly dark forewings. He noticed too that one of the underwings had a very slight tear in it as though the butterfly had had an encounter with a Jay or some other predator. Sergius was in the seventh heaven. His target was well absorbed in its feast and should be easy to capture. Quickly he converted his walking stick into the handle of a net and extracted his folding net from the inner pocket of his jacket.

He was just about to capture the prize (and in truth it was *his* prize), when a forester leapt out seemingly from behind a tree. He demanded to know what Sergius was doing and why he had a net in a Forestry Commission wood.

Meanwhile, the butterfly, perhaps disturbed by the commotion, took off. Sergius explained the whole story; but the man had no knowledge of genetics and was totally unconvinced. He forced Sergius to accompany him back to the office. There one of the other officers



found Mr Chapple's official diary. This included notes of his meeting with Sergius and the agreement to let him remove the var *iole* to experiment with. The forester was duly rebuked. Sergius discovered that the foresters were actually on the lookout for a tall man with an orange beard – obviously Ernie was around and trying to capture an *iole* to breed with. Sergius was asked to return the next day and given written permission to capture and remove any *iole* that he found. Sergius returned to the site; but despite extensive patrolling and much use of his binoculars, he saw no further sign of the *iole*.

While all this was going on, another collector, Ramsden with the orange beard, had arrived on the scene. The precious Purple Emperor soon returned to its favoured piece of dung. Ramsden made an easy capture. He had no intention of trying to breed with it; he just wanted it to adorn his collection. Ramsden was thrilled and the butterfly was stashed away for future setting.

The next few days had appalling weather; Sergius saw no Emperors and had to return home to deal with his own stock. A week later, he returned to the area, but still no one had seen any signs of the precious *iole*.

He had, of course, got his three females left from his experimental matings. He suspected that nothing unusual would come from them. The theory of genetics said that there was little hope and so it proved. From time to time, Sergius returned to the original wood, still armed with the letter that permitted him to capture any *iole* Emperors. He knew there was a slight chance that descendants of the one he hadn't been allowed to catch might have interbred. He made a major search two years later but was frustrated to find very few Emperors and none showing any signs of abnormality.

A year or two later, he attended an entomological exhibition. He was somewhat galled to see that Ramsden had exhibited a case of *semi-iole* Emperors which included one specimen that had just two white spots on its upper wings. Sergius was certain that it was the one that he had been about to capture; he looked at it more closely and saw that it also had a slight tear in one of its underwings. The coincidence was too great.

He spoke to Ramsden:

"I've seen that butterfly before. I saw it on the 7th of July in Fernyn Woods four years ago. On that day, I saw an almost perfect iole with a slight tear on one of its wings feeding on a path in the far north-west corner of Harrison's wood. I told the Forestry Commission people about



it. It is almost certainly descended from an insect that I did an experiment with some two years earlier. I had more insects than I needed and I gave some back to the keeping of Chapple, the head warden. If he was still alive, he would tell you that he released them in the vicinity of Harrison's. We agreed that if two of them cross bred we might obtain some iole's in a natural way. My stock did very well until the great storm of the following summer which blew down an oak tree in my garden and destroyed most of my breeding cage. You must have captured your specimen just after an officious forester insisted on taking me to the office. They even gave me a letter with permission to capture any iole in the Forest. I think you ought to give me back that specimen."

Ramsden shrugged his shoulders:

"Luck of the draw old boy. Anyway I didn't manage to breed with it; so unless it had mated a wild female there won't be any descendants. I am afraid that I won it by fair means – you will have to do some more work with your experiments if you want one for your collection."

A few minutes later Ramsden was taken away to receive a prize and to be photographed. He received extensive congratulations. After he had collected his cup, he made a brief speech; then he came back to collect his most precious specimen for a celebration photograph. This was to be his supreme moment. This was his greatest entomological triumph!

When he looked for his *iole*, he found that a small misfortune had befallen his most treasured exhibit. The cabinet top had obviously been opened and one forewing of his precious, almost all purple, butterfly had been cut away. Curiously, Dr Sergius Baker was nowhere to be seen.





Launch of an exciting new book series for younger readers!

The Amateur Entomologists' Society is pleased to be involved in the production of new two books being published as part of a new series with an entomological theme aimed at young children. The Series is called "*Tales and Truths about Garden Minibeasts*" and is the brainchild of children's writer, Sonia Copeland Bloom.

Each book includes a captivating story about a 'hero' or 'heroine' minibeast who has adventures that will catch the imagination of the 4-7 year-old primary school child. Although each creature receives a sympathetic anthropomorphic characterisation, the setting of each story ensures the facts built in the story are accurate – hence 'Tales and Truths' was coined.

In addition to the obvious fictional line, the books also include a section of lesser-known facts about the minibeasts that are encountered in daily life or in our back gardens. Every page is colourfully illustrated with a mix of drawings by Nick Page, and photographs of some of the invertebrates featured.

There is a section which describes how to keep the minibeast featured in the story as a pet, to observe and keep a diary about the experience. There are other related activities that will be useful for parents and teachers alike to help their children or pupils learn. Important entomological words are highlighted when first used and defined in a glossary.

Currently the series comprises '*Basil the Beetle's Scary Adventure*' and '*Woody the Woodlouse who forgot how to roll into a ball*', though more stories are in the pipeline, such as one about 'Crystal, the Small Miracle' – about a caterpillar's journey in becoming a butterfly. Sonia has generously donated all the proceeds of the books' first editions to the Amateur Entomologists' Society for our work with young children.

Mrs Copeland Bloom has been a journalist, editor and was in business for many years running a language school. On retirement, she completed a creative writing course at the University of Kent which encouraged her to start writing for children. After her NUJ training, she spent some time learning Spanish at the Universities of Seville and Madrid and even crossed Spain on a donkey in order to learn more about the country. In addition to writing, her hobbies include children, gardening, conservation and enjoyment of the countryside.

See advertisement section of the *Bulletin* for further details.



Winter Moths in the snow

by Dafydd Lewis (101103)

186 Lower Road, Gt Bookham, Surrey KT23 4AT.

I'm not sure why I find winter moths (*Operophtera brumata*) so appealing. Perhaps because this is one of the few species that is about and available in December and January to satisfy my mothing instincts; perhaps I find their resilience and somewhat unusual ecological niche intriguing; or maybe it's just because I was a winter baby, and deep down I know how they feel!

These little moths start to appear as adults during November and persist into January or even February. They are easily found shortly after dusk, when the females emerge close to the base of trees and make their way up the trunk, frantically pursued by the winged males which soon detect their scent. By the time they reach some six to eight feet up the trunk they will have mated, and they remain *in copula* for a couple of hours before the female then shuffles off and moves onwards and upwards to find a hiding place higher up the tree. Within a day or two she is ready to lay her eggs, often towards the end of a branch. In any woodland the tiny larvae will hatch in their millions in the spring, and they will be the main source of food for many woodland birds, such as the blue tit (*Cyanistes caeruleus*).

Having evolved to be flightless, the female winter moth is less easy to spot by predators on the bare trees. She is also able to channel her energy into egg-generation rather than flying, but this does mean that many females will lay their eggs in the same tree, so competition for food could be a potential problem for their offspring. The species has overcome this through the larvae's ability to spin silken threads from which they can hang down from the trees and be blown about to other food sources, sometimes considerable distances away from the tree where they hatched. This phenomenon is known as 'ballooning'. If the eggs hatch a little early, before their tree has started to bud, the larvae can manage without food for a few days, and they can also take their pick from a large number of possible foodplants depending on where they land!

Winter moths are a potentially useful species to study, for example when investigating factors that can affect male/female ratios (Lewis and Smart, 2005). I described how to 'home in' and find colonies of winter moths in a previous article in the *Bulletin* (Lewis, 2007) and last year I made some simple observations on the phenology of a colony of winter moths on a particular tree on Bookham Common, between late



November and mid-January (Lewis, 2010). I found that by midwinter (December 21st) the number of moths to be seen had diminished substantially and that this was related to temperature, with few or no moths apparent whenever the temperature fell below freezing, in particular over the Christmas period. In January 2010, when temperatures increased again, moth numbers recovered slightly, but by then it seemed that their winter emergence period was coming to an end, and that other species (such as the early moth, *Theria prumeria*) were taking over the niche and beginning to emerge.

Weather conditions in December 2010 were a little different from those the previous year, with early snow and freezing conditions, so I wondered how this would affect the winter moth population on the Common. It would have been a brave moth-er who would have ventured through the December snowdrifts on Bookham Common, but as soon as the snow cleared I ambled down to the tree I had previously examined for winter moths to see what the situation was. Moth numbers had diminished during late December and early January of the previous year but I now found large numbers of males on and around the tree, even late into the evening (9-10 pm). I had previously noted that mating always tended to occur early in the evening and that any moths *in copula* captured later than 7pm would almost always separate in the pot, unlike those caught shortly after dusk, which would stay together for around two hours. This year, I saw moths *in copula* around 9 pm and these remained together for some time after being 'potted' for observation.

From these somewhat casual observations it seemed to me that a compensatory emergence of the winter moth had taken place this winter, with large numbers appearing once the unusually cold conditions had eased, and that these were emerging, and mating, later into the evening than in the previous year. Whatever the effect of the relatively prolonged cold spell on woodland birds has been this winter, they should have plenty of winter moth larvae to feed on when spring comes.

References

- Lewis, Dafydd and Smart, Ben. 'Female sex bias in captive bred Winter Moth *Operophtera brumata* (L.) Lep: Geometridae'. *Entomologist's Rec J Var.* 2005 117 (2), 48-49.
- Lewis, Dafydd. 'Obtaining ova of the Winter Moth *Operophtera brumata* (L.) Lep: Geometridae'. *Bull amat Ent Soc.* 2007 66 (474), 195-197
- Lewis, Dafydd. 'Observations on Winter Moths *Operophtera brumata* (L.) (Lep: Geometridae) during the winter of 2009-2010'. *Entomologist's Rec J Var.* 2010 122 (2), 94-95.



Rearing the Florida Bush Cricket (*Stilpnocblora couloniana*)

by Wesley Caswell (3133)

46 Lewgars Ave., Kindsbury, London NW9 8AS.

Spring, 2010, and I thought that I'd try something different to rear. (I usually keep Lepidoptera and stick insects, along with a 31 year old tarantula, praying mantids and other favourites.)

So I obtained some ova of a Giant Katydid which looked very much like grass or plant seeds. The person I got them from said they wouldn't hatch for a long time – probably the autumn – however, a couple of months on, in June – there they were, my first tiny Giant Katydids! The eggs were kept in a small plastic box mixed with vermiculite, as apparently they go mouldy otherwise.

When hatched they looked like the monsters from the 'War of the Worlds' film: little round backs, with really huge, 'A' shaped legs. They soon started feeding on bramble leaves and although they would eat leaves of various other plants such as buddleia, bramble seemed to be their favourite.

They are quite difficult insects to keep, as when you open the cage to clean it out and change the foodplant they hop in all directions, and will escape unless you are very careful – especially when newly hatched and very small! I found that the best way to keep them was to have one of those large containers that look a bit like a plastic bucket

that you can buy at some garden centres or DIY stores – advertised as having 'hundreds of different uses' – but I doubt whether using one to clean out katydids was one of them! I emptied the lot into one of these, making sure I had new foodplant and everything ready to do a quick change.

I started with about nine hatchlings, but four somehow 'vanished'





when small, leaving me with five, which were a bit easier to control. They grew quite quickly, with a bright green body and brown markings 'on top'. By mid August they had reached quite a good size, but no doubt they have a long way to go before they become 'giant'.

In actual fact, I didn't have such a long wait for them to become 'mature', for one day at the beginning of October – just about four months after hatching from the egg – I looked in the cage, and there was my first adult katydid. No longer a rather fat insect, but a beautiful one with long bright green wings, and, like a chameleon, quite difficult to see in the greenery of leaves. Also like a chameleon, they have the habit of moving like one – jerky movements forwards and back and forwards again – quite amusing to watch.

My wife and daughter say they make a 'chirping' noise when the cage light is tuned off – however, I'm afraid I have yet to hear the noise myself – I guess I'm getting old!



Calling all Newcastle entomologists

My name is Ken Watson, a Ranger for Newcastle city council. As part of my role I undertake biological recording on five sites in the west of the city of Newcastle.

Mammals, birds and butterflies are popular with the public and we find there is no difficulty in getting records for these groups of animals. However we are having a significant problem getting reliable records of bees, moths, beetles, ants and other "less popular" insects.

I am looking for volunteers to help collect and provide insect records for sites in all of the city's countryside sites.

So if you live near or in Newcastle and have any skills in the identification of insects of any of the less popular groups, could you contact me or any of the Rangers either by telephone on 0191 2648501 or email to [newburn.countrypark @newcastle.gov.uk](mailto:newburn.countrypark@newcastle.gov.uk)



Bees and wasps in a rural garden in Buckinghamshire

by Andrew (Ched) George (5397)

Bayhams, Radnage Common Road, Radnage, Bucks. HP14 4DD.

My garden sports a *leylandii* hedge on the northern side and this is generally trimmed annually, but one of the trees was allowed to grow on, primarily to add some shelter to a bird-feeder on a nearby Birch tree. This singleton tree became rather high and shaded too much of a neighbour's garden, so it was felled several years ago. However, I had decided to use the stems as potential habitat for bees and wasps, so a large part of the base was spared to a height of about seven feet. A series of holes was drilled in the remnants to facilitate nesting sites for bees and wasps. These were in rows of varying diameters from 1.5 – 6 mm, the smallest holes being in the top row. Fresh series of holes were made annually. In addition, I wedged a commercially constructed "hymenopteran house", comprising hollow canes, in the top of the stump. The nesting holes faced approximately south, and a pond was situated close by on this sunny side. Photographs of the tree are shown, one in close-up to give detail of the holes.

On sunny days during the years 2007 – 2010 I would observe occasionally any hymenopteran activity on the tree. Sometimes I succeeded in trapping specimens for identification, both from the tree and elsewhere in the garden. Specimens (other than the bumblebees) were generally identified by either Martin C. Harvey or David W. Baldock. The only ant species was determined by Michael Killeby. Records were submitted to BWARS (Bees, Wasps and Ants Recording Society).

The "hymenopteran house" seemed totally unproductive, but this may have been a consequence of its previous positioning in a shady part of the garden. Here, the structure had become somewhat covered in cobwebs, and I had not thoroughly cleaned it before re-positioning it. Many of the drilled holes in the stump were visited, entered, explored, nested in, and checked for prospective hosts or prey by a variety of bees and wasps.

Bumblebees were recorded mainly at the limited number of nectar plant species available. These were stinking hellebore, a species of climbing cotoneaster, rosemary, lungwort and lavender. Solitary bees seemed to favour dandelions and rosemary.



The garden leylandii.



Close-up of the stump showing drilled holes and "hymenoptera house".

Inset: The wasp *Gorytes laticinctus*

The ruby-tailed wasps of the subfamily Chrysidinae are very gaudy and attract immediate attention. *Chrysis angustula* may have been intent on parasitizing the nests of *Symmorphus bifasciatus*, as the latter species was recorded. *Chrysura radians* is one of the larger members of the subfamily and was seen on three occasions; it is a relatively rare species. *Pseudomalus violaceus* is another metallic-coloured wasp, of violet hue, and was recorded once; it was flitting rapidly about a conifer bush adjacent to the dead *leylandii*. The species may parasitise *Pemphredon lugubris*, again recorded once. *Sapyga quinquepunctata* is a parasite of bees of the *Osmia* genus. I have recorded *Osmia rufa* in my garden, and I know of several local houses where colonies of this *Osmia* species exist.

The black spider-hunting wasp *Anoplius nigerrimus* is often seen on my patio and the brick surrounds of the pond. It has occurred on a number of occasions within the house early in the year. The crabronid wasps *Crossocerus megacephalus*, *Ectemnius cephalotes* and *Ectemnius continuus* were occupying the drilled holes in the *leylandii*, and



clearly must have been nesting. *Trypoxylon clavicerum* is a small, black, elongated wasp and was seen commonly entering the smallest drilled holes.

All the six species of *Andrena* mining bees recorded in the garden are common.

Specimens of *Megachile willughbiella* began appearing indoors during April 2003. They were emerging from a potted *Hibiscus* plant which spends summers outdoors and winters indoors. The flower pot contained rectangular holes at the junction of the side and base, rather than simple round holes in the base. This same pot was to yield 16 specimens of the black-and-yellow wasp *Gorytes laticinctus* (shown in the 3rd photo), all emerging indoors in spring 2010 (a historically rare species which has increased and expanded its range recently).

Background information for this article was taken from the two recent publications by David Baldock, although my early facts were learnt from the old Wayside and Woodland publication by Edward Step.

Species recorded are listed below, and those taken from the tree more recently (I had not made specific notes on some of the species captured in the earlier years) are marked with the prefix L:

Chrysidinae – Ruby-tailed Wasps

- L *Chrysis angustula*
- L *Chrysis ignita* agg.
- L *Chrysis impressa*
- L *Chrysura radians*
- L *Pseudomalus violaceus*

Sapygidae

Sapyga quinquepunctata

Formicidae – Ants

Myrmica scabrinodis

Pompilidae – Spider-hunting Wasps

Anoplius nigerrimus (hunting on patio)

Arachnospila anceps (hunting on patio)

Eumeninae – Mason Wasps

- L *Symmorphus bifasciatus*

Vespinae – Social Wasps

Dolichovespula media

Dolichovespula saxonica

Vespa crabro – **Hornet**

**Crabronidae – Crabronid Wasps**

- L *Trypoxylon clavicerum*
- L *Crossocerus megacephalus*
- L *Ectemnius cephalotes*
- L *Ectemnius continuus*
Gorytes laticinctus
Pemphredon lugubris

Colletinae – Yellow-faced Bees

- L *Hylaeus communis*

Andreninae – Mining-bees

- Andrena bicolor*
- Andrena dorsata*
- Andrena fulva*
- Andrena minutula*
- Andrena nigroaenea* (nectaring on dandelion)
- Andrena nitida* (nectaring on dandelion and mines in the lawn)
- Andrena scotica*

Halictinae – Small Mining-bees

- Lasioglossum fulvicorne*

Megachilinae – Leaf-cutter Bees

- Megachile willughbiella*
- Osmia caerulea*

Osmia rufa **Red Mason Bee** (nectaring on rosemary)

Apinae

- Nomada flava* Parasitic on Mining-bees
- Nomada flava* / *panzeri* Ditto
- Anthophora plumipes* (nectaring on lungwort)

Bumble-bees

- Bombus campestris*
- Bombus hortorum*
- Bombus lapidarius*
- Bombus pascuorum*
- Bombus pratorum* (many nectaring on cotoneaster sp. and rosemary)
- Bombus ruderals*
- Bombus sylvestris*
- Bombus terrestris*
- Bombus vestalis* Social parasite of *B. terrestris* (none dissected)

Bibliography

- Baldock, D.W. (2010), Wildlife Reports. Bees, Wasps and Ants. *British Wildlife Magazine*, **21** :360.
- Baldock, D.W. (2010), *Bees of Surrey*. Published by the Surrey Wildlife Trust.
- Baldock, D.W., (2010). *Wasps of Surrey*. Published by the Surrey Wildlife Trust.
- Step, E. (1946). *Bees, Wasps, Ants & Allied Insects of the British Isles*. Published by F.Warne and Co.



Don McNamara

It is with great sadness that we record the death of Don McNamara (5537), an enthusiastic and knowledgeable amateur and long-standing member of the AES. Don was a great hands-on entomologist who bred many species of British and exotic Lepidoptera, keeping extensive and detailed notes in his diaries, which were illustrated with drawings and photographs. He passed on his knowledge through personal contact, numerous articles in the *Bulletin*, and a series of breeding hints and tips that were distributed through various livestock groups including the ELG and Entomology Factors. He had a particular interest in Owl Moths (Brahmaeidae) and won the Hammond Award in 1990 for an article on these moths published in the *Bulletin* (49:11-14). He participated in a number of field trips abroad, particularly to Ecuador, and was very knowledgeable about tropical butterflies. He served on the AES Council and the Conservation Committee for a number of years. He was a regular visitor to the annual exhibition, and a willing volunteer in the thankless and laborious tasks involved in setting up the exhibition.

Don was also a poet! The AES published a number of his entomological poems over the years, and one is reproduced below.

ICHNEUMON

Beware!
She has it all -
The dainty touch,
Balletic stance,
Lover's clutch,
The architecture of an armoured knight,
She tests the midday air
And rides the rhythms of the night.

And then,
Bestrides her sleeping prize with potions rare,
Ecstatic angel in darker guise.
Take care,
The purpose behind the promise of her brimming eyes,
Behold the hypodermic stare.

Don McNamara
(*Bull.amat.Ent.Soc.*, 1987, 46:163)



Letter from Spain – 10th in a series – Finding more Dead Insects

by David Keen (3309L)

Calle Casto Bancalero 11, 41650 El Saucejo, Sevilla, Spain

Since my first article on finding dead insects was published in the Bulletin in August 2008, I have found more interesting dead insects in Spain so I thought I would write this follow-up article in the hope that you will find these notes of interest.

I will start with the Lepidoptera and have to mention first the Cream-spot Tiger, *Arctia villica angelica*. This is, of course, the Spanish subspecies where the white markings on the forewings of the British subspecies (*britannica*) are replaced with creamy yellow. Quite a few males have been found dead in the local streets over recent years but no females. There is, apparently, a form of this species found in the south of Spain which has white markings on the forewings but this does not seem to occur in the Province of Sevilla. The Striped Hawk, *Hyles lineata*, is a frequent visitor to my MV trap during the summer months. However, I was surprised to come across a dead specimen in the centre of our village on 14 December 2010. I suspect that it had only recently been squashed as it was still soft and by no means rigid.

The only butterfly that I have found dead was a female Clouded Yellow, *Colias croceus*. This was found in the middle of the main track in the local countryside on 27 April 2008. It was a very fresh specimen in near perfect condition and I assume it had been hit by a car or a tractor whilst flying over the track shortly before I found it.

I mentioned in my previous article that I had found a male of the beetle *Cebrio superbus* in the street by my house in October 2006. Strangely enough, another male was found dead in almost the same spot on 29 September 2009. During the intervening period I have come across several other males in this area, so it would seem to be well established here. On one occasion I found two fighting with one of them biting off one of the other's antennae! Another interesting beetle that I found dead in our street was a specimen of the buprestid, *Capnodis tenebrionis*. The larvae of this species feed in the wood of almond trees and can cause considerable damage to this local crop.

By far the most interesting dead beetle I found was on the pavement in the centre of the village on 3 June 2010. This was squashed but in not too bad condition and was a specimen of the Musk Beetle, *Aromia moschata*. As is well known, the larvae of this beetle live on the wood



of the willow tree. Now the name of our village – El Saucejo – is derived from El Sauce which is the Spanish for willow tree. When the village was founded hundreds of years ago there were several willow trees growing by a spring and this is how the village got its name. When we first came here on holiday about 12 years ago, there were three willow trees in a square near the centre of the village. By the time we moved here, two had been removed but one still remains. The beetle was found about 300 metres from this tree but I have yet to find any other specimens in the vicinity.

The occasional bug of the Order Hemiptera is found dead but normally there is nothing to write home about. However, on 23 August 2010, I was in the garden when I noticed something being blown across the patio. I thought it was a beetle but on closer examination I realised it was actually a bug. In fact it was a near perfect example of the Water Scorpion, *Nepa cinerea*. This is the first time that I have seen this species in Spain. I came across it several times whilst living in England but only in ponds. This is a winged species, and from the literature it has been known to fly but apparently only rarely. What it was doing in my garden I have no idea. There are no known ponds in this area although there are a few very small “reservoirs” that the locals use in the countryside to store and then extract water for their crops.

The only fly (Diptera) of note was a female hover-fly, *Scaeva (Catabomba) pyrastris* found dead on the sun terrace on 22 April 2008. This is the only specimen of this species that I have found in or around the garden. It does turn up occasionally in the local countryside but is by no means as common here as it is in England. This, to be honest, is true of the hover-flies in general as they never appear in the great numbers I was used to seeing in England. That said, they can be found in the countryside through all twelve months of the year.

As I mentioned in the previous article, mantids are found dead fairly often. A very nice male *Empusa egea* was found in the local school on 15 May 2008. I gather that it caused quite a stir in the classroom before the teacher took it to the local library and handed it to the librarian, Juan. He brought it to me that afternoon and was very impressed that I could immediately identify it. This species is quite common here although the distribution within Spain appears to be sporadic. Another species that is not supposed to be found down in the south of Spain is *Iris oratoria* but it comes to light on a regular basis. A male was also found dead on my patio on 9 September 2008.

Another dead specimen worth mentioning is a female Vagrant Emperor Dragonfly, *Anax ephippium*. This was found dead on 28



December 2010 on the Presa de el Limonero (Lemon tree Dam) which is situated just off the Antequera road on the northern outskirts of the city of Malaga. We had gone out that day with my daughter to visit the Botanic Gardens which are close to the dam, but the weather was overcast and quite cold so we decided to return home early. However, on seeing a sign for the dam as we left the car park we made the short detour to walk over the dam and look at the reservoir behind it. There in the middle of the road was this, clearly freshly killed, specimen still with its abdomen in full colour. The head and thorax were badly squashed but only one of the four wings showed signs of damage. As the name implies, this is a migrant species which occurs in North Africa and around the Mediterranean. It flies throughout the year and is most active at dusk – being regularly attracted to lights.

Reference

Keen, David (2008). *Letter from Spain - 6th of a series - Finding Dead Insects*. *Bull.amat.Ent.Soc.* **67** (480) 171-6.



Book Reviews

Butterflies Messages from Psyche

by Professor Philip Howse. Papadakis Publisher, 2010. 192pp. ISBN 978-1-901092-80-6. Paperback £25 exc. p&p. May be purchased from Amazon for £20.25 inc. p&p.

Philip Howse combines science together with symbolism, history, art, religion and philosophy in this beautiful book in order to explain the evolutionary 'purpose' behind the detailed patterning and colouring of butterflies and moths. The book is divided into fourteen sections starting with a two page preface which calls to the reader to open their eyes to the beauty of nature as they would do to a piece of artwork. The book then proceeds with eleven main chapters which travel through the ages in order to explore the meanings of different symbols found on the wings of butterflies and moths, many of which are recognisable even from your own back garden. These symbols are compared with those seen in works of art from throughout history. The book comes to an end with a two page index and a page of notes which list references for the works used, organised by chapter.



The book is illustrated throughout with photographs from nature and pictures of works of art. The language used aims the book at an adult audience, and is intriguing and motivating. Indeed after reading this book readers may find themselves with a new or greater desire to go outside with a view not to dissect or categorise but simply to enjoy the delicate magnificence that is the natural world.

With stunning photography and artwork on almost every page this book draws readers into a world of breathtaking beauty and intelligence and leaves them feeling enriched by both science and culture.

Kara Majerus

Extreme Insects

by Richard Jones, 2010. 288 pp., fully illustrated in colour, Hardbound. ISBN 978 0 00 731077 7. Harper Collins Publishers, London. Price £30.



This is a sumptuous book with a set of superb colour photographs. It clearly falls into the 'coffee-table book' category. Indeed, for the serious entomologist, it would be easy to dismiss it – the chapter headings include 'Biggest blockhead', 'Giddiest insect', 'Prettiest eyes' and 'Most disgusting habits'. At first sight it seems to be sensationally written for the mass market.

However, this book is far better than that. Once you get past the titles, the writing is authoritatively and accurately realised by Richard Jones, who has contributed to the *Bulletin* on numerous occasions. Each entry is expertly written, but concise and readable. After reading a few entries, even the most determined insectophobe (if there is such a word) cannot fail to be fascinated. Indeed, I believe that this is where this book's strength lies. It has the glorious photographs and bizarre chapter titles to draw the intrigued non-entomologist in. It then follows up with the sucker punch of fascinating information, allowing a window into a little-known world.

Some of the entries may be a little controversial – how do you decide what is the most endangered insect, for example? However, the example is usually justified in the captivating text. The information is well-researched and there is even a last minute correction. The Monarch butterfly is credited with the 'Biggest insect migration'.



However, a 'Stop press' at the end of the book points out that certain dragonfly species make greater migratory trips over the Indian Ocean.

This book would make an excellent gift for a friend or family member who dismisses insects as 'creepy-crawlies' or 'bugs'. Though, they should be warned, it may just get them hooked on entomology! While you are buying one for them, you may well find that you get yourself a copy, just for the sheer joy it encapsulates.

Phil Wilkins

The Leafcutter Ants

by Bert Holldobler and Edward O. Wilson. New York and London, W.W. Norton, 2011. Paperback, 160pp. ISBN 978-0393338683 £14.99. (Also available in a Kindle edition).

Imagine for a moment that you are sitting on a bench in a park, in one of the southern states of America. Suddenly you notice that a small path across the grass seems to be moving, so you get off the bench and take a closer look. You find that what you thought was a path is made up of thousands of small aliens, some walking in one direction and some in the other. Many of those walking in one direction are carrying pieces of leaf, and on top of those pieces of leaf are much smaller aliens, frantically waving their arms about like fly swatters. You wonder why they are doing that, so you get down closer to the ground to see. And then you realise that these are not alien creatures at all, but ants.

A closer look reveals that there is a veritable air-force of tiny parasitic wasps flying above the convoy of ants. The wasps are trying to alight onto the larger ants that are carrying the leaves. If they succeed, they will lay an egg in a difficult to reach part of the back of the neck of an ant; their larvae will then hatch and eat the ant alive! And that is why the tiny ants on top of the leaves are there, 'fly swatting' – they are trying to keep the flying wasps away from the larger ants which are carrying the leaves. The ants are taking the leaves home: not to eat (though they might have a nibble now and again) but to place them into large, temperature-controlled chambers inside their nests, where a particular kind of fungus will grow on them. It is that fungus that the ants are farming, to use as food for themselves and their larvae.

This book is all about these leafcutter ants, their biology and social organisation. The book is very well illustrated, and as might be expected from these authors – arguably the world's leading experts on ants, and both Pulitzer prize-winners – the quality of the content is



excellent. Indeed, the book claims to be the most detailed and expert book that has ever been produced about any single ant species, and was inspired by a section in the authors' acclaimed tome 'The Superorganism'.

This is an eminently readable book suitable for a wide readership, and will interest anyone from myrmecologists to lay people. I would thoroughly recommend it to anyone wishing to gain an insight into the amazing world of social insects.

Dafydd Lewis

A Butterfly Year

by Paul Wetton. 2010. Available from www.ibirdz.co.uk for £16.95 inclusive of UK postage, £18.50 EU or £19.95 to the rest of the world. 151 minutes

A Butterfly Year comprises a two disc DVD set of clips taken during 2010 of the 58 species of butterfly usually found in the British Isles. Disc one, 'Flights in Spring', covers 28 species that are mainly encountered during the spring, whilst the other 30 species, more usually associated with summer, appear on disc two, 'On Summer's Breeze'. To have attempted the task of filming all of these species in their natural habitat in one year was clearly not something to have undertaken lightly, and Paul Wetton has to be congratulated on successfully doing so.

Each disc comprises a short section on the various species, and shows several clips of different specimens of each, including both male and females, those at rest, feeding or copulating. It is pleasing that all of the clips show specimens close up, and not just as a small part of a much larger view. I was also impressed with the clarity of the shots; much effort and patience must have been used to obtain them.

Clearly aimed at butterfly watchers rather than collectors, there is some narration giving brief details of the species concerned which will no doubt be useful and interesting to anyone newly interested in our butterfly fauna, but a few more unusual facts were also given particularly in the features that can be used to separate the sexes, such as the colour difference on the tips of the antennae of the Chequered Shipper *Carterocephalus palaemon*, which more experienced lepidopterists will find helpful.

Peter May (10514)



Amateur Entomologist Surveys and Citizen Science

Citizen science is a term used for projects in which an individual or group of people, many of whom may have no formal scientific training, make scientific observations. Individuals who keep journals of their own insect sightings or larger groups of volunteers organizing insect surveys are performing citizen science.

Traditionally this information would be shared only with local group members or reside in someone's personal journal of sightings. With the advent of the internet this data can be published and shared with the world through the website 'Wildlife and Plant Sightings' www.junponline.com.

Submitting your personal or group surveys of insect sightings to 'Wildlife and Plant Sightings' will allow others to share in your findings and collectively increase our knowledge of the insect biodiversity and life cycle patterns in a region. Sightings are automatically organized into a database that is publicly accessible and is organized in basic reports for everyone to see.

Amateur and professional, young and old, entomologists can contribute insect sightings and network among one another at 'Wildlife and Plant Sightings'. Documenting and sharing your insect survey data promotes engagement and education in the local area and among entomologists everywhere.

Organizations can also promote themselves with a free account showing webpage, listing their organization details and mandates, along with their reported sightings.

Learn more about 'Wildlife and Plant sightings', view contact-information, and send us feedback and questions at: <http://www.junponline.com/ContactUs.php> or contact@junponline.com

EDITOR'S NOTE: This site is based in Canada, although it has recorded sightings from the USA and Africa. There is some similarity to our own UK-based iSpot, but it may offer some potential for non-UK based entomologists, and even those within the UK who would like a ready-made website for their own use.





Malcolm Simpson

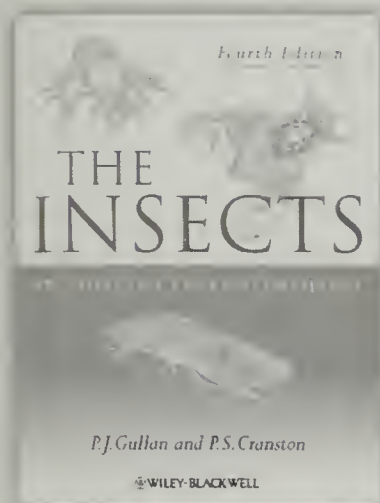
It is with great sadness that we record the passing of Malcolm (Mac) Simpson (2735) on 9th December 2010. He was a long-standing member of the AES, and regular visitor to our annual exhibition. He also served as a member of Council from 2005 to 2008, where he was particularly interested in member recruitment. He also donated a desktop display panel to the society. He contributed a number of articles to the *Bulletin* including some thoughtful views on the collecting/conservation debate.

He founded the *Simpson Collection of entomological memorabilia*, which contained many fine examples of entomological equipment, ephemera and documents. He was particularly fortunate to discover the remains of the only known example of the "clap net", which he recorded in the *Bull.amat.Ent.Soc.* **66**: 172-175.

Those of us who donated an item of memorabilia to Malcolm's collection would be certain to receive, soon afterwards, a measured and well crafted letter of thanks, written in Malcolm's distinctive hand. It was in one of these letters that Malcolm offered to write a few articles for the Bug Club Magazine on collecting memorabilia, for the benefit of our junior members, which he duly did. Malcolm brought carefully selected items from his extensive collection of entomological memorabilia to show at the members' days during his time on council, and he could be seen surrounded by an enthralled audience as he vividly recounted the story of some mystery object or cunning device once used by entomologists. Even during his final illness Malcolm sent items of AES memorabilia for us to display at our 75th anniversary Members' Day at his beloved Natural History Museum. He will be missed.

SAVE on Key Resources in Entomology From Wiley-Blackwell

20%
off



The Insects: An Outline of Entomology, 4th Edition

P. J. Gullan, P. S. Cranston

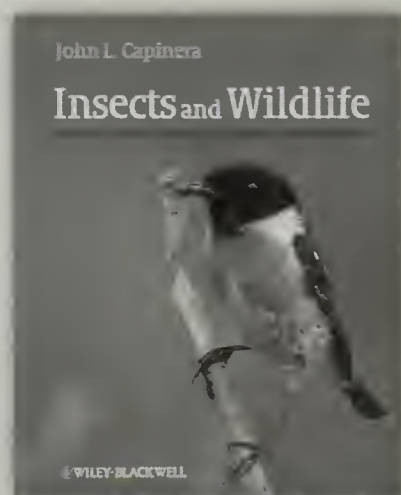
ISBN: 978-1-4443-3036-6 | Hardcover | 584 pages | January 2010
RRP: £40.00 / €51.90 / \$100.00

Special offer price: £32.00*/€41.52*/\$80.00*

* Quote LIFE when ordering online at www.wiley.com to receive your discount.

Insects and Wildlife

John Capinera

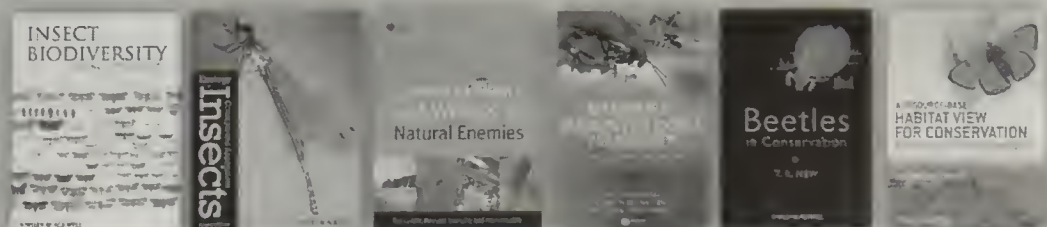


ISBN: 978-1-4443-3300-8 | Paperback | 500 pages | March 2010
RRP: £45.00 / €57.90 / \$79.95

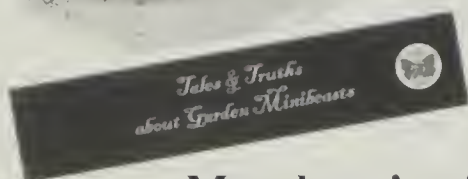
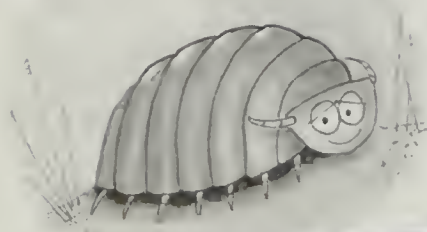
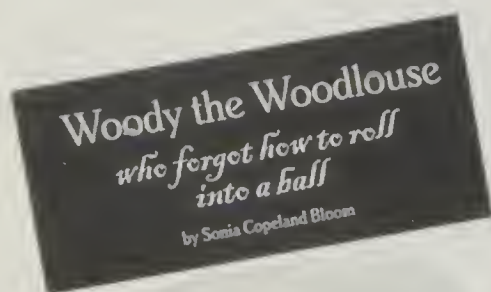
Special offer price: £36.00*/€46.32*/\$63.96*

* Quote LIFE when ordering online at www.wiley.com to receive your discount.

Visit www.wiley.com/go/entomology
for more information and to browse our collection of books



 **WILEY-BLACKWELL**



Just Published!

The second book in the series *Truths and Tales about Garden Minibeasts*

by
Sonia Copeland Bloom

*Includes exciting
Bug Club Competition!*

Members' price £3.50 post free

Non-members' price £4.50

If your child enjoyed the first book in this series — *Basil the Beetle's Scary Adventure* — they will love to read about the escapades of Woody, the little woodlouse who forgot how to roll into a ball, and his friend Spinny the Spider!

Both books are supplied signed by the author in this first edition.

They are designed as 'faction' books, and consist of an engaging story about a minibeast supplemented by factual sections:

Information about insects, especially beetles or woodlice

How to look after them as pets

A glossary of terms that also serves as an introduction to entomology

Suggestions as to how to take your interest in minibeasts further

HOW TO ORDER

To order one or both of these books, just send a cheque for the correct amount to: Tales and Truths, PO Box 8774, London SW7 5ZG
Or visit the AES online shop <http://shop.amentsoc.org>



Dipterists Handbook (Second Edition) edited by Peter Chandler (with contributions by 42 other authors)

This Handbook provides a work of reference for everyone interested in the study of flies, both beginners and experienced dipterists.

As in the first edition great emphasis has been placed on the habitats and biological associations of flies. Among the authors are specialists in each field of study so it has again been possible to bring together a summary of the latest knowledge of all aspects of the biology of Diptera at the species level.

There are additional subjects not covered in the first edition including Forensic entomology and an explanation of the classification of Diptera and a bibliography of key works for the identification of both adults and larvae. Some specific habitat associations are covered in greater detail to reflect increased ecological knowledge of flies and the greater significance now being placed on some habitats in the conservation of Diptera. 525 pages with 32 colour plates and 45 text figures. **£ 52.00**

Members price £ 44.00

British Butterflies throughout the year by Peter May

This new book from the AES describes the adults of different species of British butterflies, according to the time of year they appear on the wing. Nearly all the 60 British species are illustrated. Focussing on encouraging an interest in entomology among the young, and the young at heart, there is a helpful calendar of flight times and a useful checklist to help you keep track of your observations. **£ 5.00**

Members price £ 3.80

Preparing and maintaining a collection of Butterflies and Moths

by P. May and M. White. A practical manual detailing the various methods used to prepare specimens for a collection, from killing methods, setting the specimens and repairing damaged ones, to storage and preservation, including pest prevention and cure. 21 pages, 4 figures and 5 plates. (2006) **£4.85**

Members price £3.65

The Hymenopterist's Handbook by Dr. C. Betts *et. al.*

2nd edition dealing with the history of their families, classification and structures; natural history; studying, collecting, breeding, attracting and preserving Hymenoptera. Appendices include keys to the families. 214 pages with numerous tables, keys and figures (1986) **£ 11.45**

Members price £ 8.60

Revised Flight Tables for the Hymenoptera

Revised flight tables for the Hymenoptera giving, wherever possible, times, location, flower visits and some indication of distribution and abundance. 24 pages (1988) **£ 3.10**

Members price £ 2.35

A Coleopterist's Handbook

Edited by J.Cooter & M.V.L.Barclay The *Coleopterist's Handbook*, is now available as a fully revised and expanded fourth edition. Nomenclature has been brought inline with

current use, collecting/curatorial methods reflect best practice and plant/beetle and beetle/plant lists are included together. Recent additions to the British fauna, modern and traditional techniques are included. All advice and comment given in the book is based upon collective years of practical experience of both curatorial methods and field craft; beetle family chapters have each been written by an internationally recognised authority. 496 pages including 32 colour plates. **£ 54.00**

Members price £ 39.00

Host plants of British Beetles: A List of Recorded Associations

A list of a wide range of plants, in alphabetical order, together with the beetle species that have been recorded as being associated with them. 24 pages (1992) **£ 3.10**

Members price £ 2.35

A Silkmoth Rearer's Handbook by B.O.C. Gardiner

SPECIAL OFFER PRICE £ 7.70

No further discounted price available

Rearing and Studying Stick and Leaf-Insects by P. D. Brock

Specifically intended for beginners, although it is also suitable for experienced Phasmod enthusiasts, it is one of the few guides to rearing that features the majority of the culture stocks available, 22 species in detail. The informative text is complimented by 8 colour plates, 14 black and white plates and 29 figures. (New edition. 2003) **£ 11.20**

Members price £ 8.20

The Study of Stoneflies, Mayflies and Caddisflies by T.T. Macan

A comprehensive guide to collecting and studying the biology and ecology of these aquatic insects. 44 pages, 10 figures and bibliography (1982) **£ 4.20**

Members price £ 3.15

Breeding the British Butterflies by P.W. Cribb

A practical handbook covering all aspects of butterfly breeding, including general techniques, equipment and hints on how to breed each of the British species. 60 pages, 6 figures, 5 plates, Revised (2001) **£ 5.20**

Members price £ 3.85

Practical Hints for the Field Lepidopterist by J.W. Tutt

Written at the turn of the century, this book has been reprinted because of its scarcity and value to students of Lepidoptera. It gives a complete month by month guide to which species and stages of macros and micros to look for and how to find them. Also contains a biological account of the early stages and how to keep, rear, photograph and describe them. 422 pages. Hardback. (Reprinted 1994). **£ 24.00**

Members price £ 18.30

An index to the modern names for use with J.W. Tutt's Practical Hints for the Field Lepidopterist by B.O.C. Gardiner

A valuable cross-reference guide between the scientific and English names used in the early 1900s and the present time. **£ 4.70**

Members price £3.50

A Guide to Moth traps and their use by R. Fry and P. Waring

The first sections deal with the measurement and properties of light leading into the types of lamp available and the electrical circuits needed to operate them. The next sections give details of the construction of the most popular traps used in the UK. The last half deals with the practical use of traps in the field including where and when to trap, limitations of traps and their relative performance. 68 pages, 21 figures, 15 plates (1996)

£ 6.85

Members price £ 5.05

The Amazing World of Stick and Leaf Insects by Paul D. Brock

A superb, comprehensive guide, for all those intrigued by these groups of insects. Topics covered include structure, fascinating facts, life history and development, defence behaviour, enemies, collecting, breeding (including trouble shooting), preserving, taxonomic studies, important collections in Museums etc. around the world and elaborate stories, beliefs and poems. Also outlines the major known species around the world on a regional basis. A section on Fossils is included. Includes a comprehensive glossary of the technical terms used in the description and classification of stick and leaf-insects. Hardback A5, 184 pages, 46 figures, 26 black and white plates and 40 pages of colour plates (containing 83 photographs and 4 drawings/paintings of insects and their habitats). (1999)

£ 18.90

Members price £ 14.10

Rearing Parasitic Hymenoptera by M. Shaw

This booklet provides information on the parasitic Hymenoptera to enable successful studies to be made of this little understood group of the British insect fauna. Details are given on the general biology of parasitic wasps, rearing principles, efficient rearing practices and detailed methods of dealing with adult wasps. 52 pages, 4 colour plates (New edition - 2001)

£ 5.70

Members price £ 4.20

Larval Foodplants of the British Butterflies by Peter May

A comprehensive compilation of the known larval foodplants of our native and immigrant butterflies. Also including "How to Encourage Butterflies to Live in Your Garden" by the late Peter Cribb 62 pages. (2003)

£ 7.40

Members price £ 5.45

The larger water beetles of the British Isles by Peter Sutton

For those who love the spectacular larger water beetles of the British Isles, this is the publication that you have been waiting for! It is the only modern publication with colour illustrations of all of our aquatic coleopteran megafauna and it provides the most up-to-date distribution maps revealing their current distributions. Jam-packed with fascinating details of their life-histories, this book covers 11 species including the 6 native 'Great Diving Beetles' and the 'Silver Water Beetles'. It is also copiously illustrated with text figures and has much additional information including details of observed climate-induced range changes and the conservation measures required to ensure their continued survival.

£ 11.90

Members price £ 8.90

Glossary for the Young Lepidopterist

6 pages, 2 figures. (1951)

£ 1.05

Members price £ 0.90

A Label List of European Butterflies

20 pages. (Revised 1981)

£ 2.35

Members price £ 1.85

Some British Moths Reviewed

Aid to the identification of some of the more difficult species. Reprinted from the *Amateur Entomologist* Vol. 5 (1941) and a *Guide to the Critical Species of Lepidoptera*, reprinted from *Entomologists' Gazette* 1969-72. 64 pages, 6 black and white plates, numerous figures (1985)

£ 4.45

Members price £ 3.35

Butterflies of Cyprus 1998 (Records of a years sightings)

by Eddie John

Observations of the 44 species of butterfly found on the island in 1998 including notes on each species and distribution maps. 46 pages (2000)

£ 4.30

Members price £ 3.25

Collecting Het.Bugs (Hemiptera: Heteroptera)

12 pages (including 2 plates). (1946)

£ 1.20

Members price £ 1.00

Collecting Clearwings

12 pages (including 2 plates), 4 figures. (1946)

£ 1.10

Members price £ 1.60

Collecting Lacewings

9 pages, 8 figures, 5 plates. (2nd edition 1976)

£ 2.25

Members price £ 1.75

An Amateur's Guide to the Study of the Genitalia of Lepidoptera

16 pages, 15 figures. (1973)

£ 3.10

Members price £ 2.35

Rearing the Hymenoptera Parasitica

16 pages, 1 plate, 10 figures. (1974)

£ 2.55

Members price £ 2.00

Rearing Crickets in the Classroom

12 pages, 2 plates. (1986) (Reprinted 1993)

£ 2.10

Members price £ 1.65

Guidelines for Entomological Site Surveys

Published on behalf of the JCCBI. 7 pages (2000) (Reprinted 2003)

£ 3.10

Members price £ 2.35

The Journal of the Entomological Exchange and Correspondence Club 1935-1936

An AES Jubilee Publication. Fascinating reprint of the very first volume of the AES journal. 100 pages.

£ 4.20

Members price £ 3.35

All the above publications sent post free to U.K. addresses. Outside U.K. please add 10% to order value for postage by surface mail. For postage by air-mail outside Europe please add 30% to order value. Please allow 28 days delivery.

Please make all cheques/postal orders payable to 'AES Publications' and send to:

AES Publications, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Telephone 01277 224610 • Fax: 01277 262815 • E-mail: aespublications@btconnect.com



AES Membership Rates 2011

Membership of the Society runs from 1st January to 31st December each year. New members will receive all publications published during the year of enrolment subject to availability, except for those joining on or after 1st October.

Any member joining on or after 1st October will be deemed to have joined for the following year unless he or she specifically requests membership for the current year. If such a request is made, the publications already published that year will be sent with the enrolment confirmation letter and the remaining ones will be sent when they are published. A further membership subscription will be necessary for the following year.

If you have any queries about membership please contact us via the website, www.amentsoc.org or PO Box 8774, London SW7 5ZG

Individual Adult Membership

Membership sub-category	UK	Overseas
<i>Bulletin</i> only	£20.00	£25.00
<i>Entomologist's Record</i> only	£25.00	£30.00
<i>Bug Club Magazine</i> only	£20.00	£25.00

Individual Bug Club / Junior Membership

Membership sub-category	UK	Overseas
Junior under-18 (<i>Bug Club Magazine</i> only)	£12.00	£17.00
Junior aged 13-17 (<i>Bulletin</i> only)	£12.00	£17.00

Family or Combined Membership

Membership sub-category	UK	Overseas
<i>Bulletin</i> & <i>Entomologist's Record</i>	£40.00	£45.00
<i>Bulletin</i> & <i>Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record</i> & <i>Bug Club Magazine</i>	£35.00	£40.00
<i>Bulletin</i> , <i>Entomologist's Record</i> & <i>Bug Club Magazine</i>	£48.00	£53.00

Associate / Institutional Membership

Membership sub-category	UK	Overseas
<i>Bulletin</i> only	£20.00	£25.00
<i>Entomologist's Record</i> only	£50.00	£55.00
<i>Bug Club Magazine</i> only	£20.00	£25.00
<i>Bulletin</i> & <i>Entomologist's Record</i>	£65.00	£70.00
<i>Bulletin</i> & <i>Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record</i> & <i>Bug Club Magazine</i>	£65.00	£70.00
<i>Bulletin</i> , <i>Entomologist's Record</i> & <i>Bug Club Magazine</i>	£75.00	£80.00

The Amateur Entomologists' Society

PO Box 8774, London SW7 5ZG

www.amentsoc.org

The Bulletin

of the Amateur Entomologists' Society

Volume 70 • Number 494

February 2011

CONTENTS

Editorial	1
Society Matters	4
Hodsman, C. How I became an Entomological Artist	8
Sokoloff, P. So who was John Curtis?	11
Edmondson, R. Southern Oak Bush-cricket (<i>Meconema meridionale</i> Costa, 1860). Orthoptera: Tettigonidae.....	15
Woolmer, J. The Collectors	16
Launch of an exciting new book series for younger readers!	22
Lewis, D. Winter moths in the snow.....	23
Caswell, W. Rearing the Florida Bush Cricket (<i>Stilpnocloria coulouiana</i>)	25
Calling all Newcastle entomologists.....	26
George, A. Bees and wasps in a rural garden in Buckinghamshire	27
Obituary: Don McNamara	32
Keen, D. Letter from Spain – 10th in series – Finding more Dead Insects	33
Book Reviews	
<i>Butterflies Messages from Psyche</i>	35
<i>Extreme Insects</i>	36
<i>The Leafcutter Ants</i>	37
<i>A Butterfly Year</i>	38
Amateur Entomologist Surveys and Citizen Science	39
Obituary: Malcolm Simpson	40

ES 36 A

The Bulletin



of the Amateur Entomologists' Society

Volume 70 • Number 495

April 2011

NATURAL
HISTORY MUSEUM

26 MAY 2011

PRESENTED
ENTOM LIBRARY



ISSN 0266-836X

Editors: Dr P. Wilkins & Paul Sokoloff



000174479



Founded in 1935

The AES • P.O. Box 8774 • London • SW7 5ZG

<http://www.amentsoc.org>

Officers of the Society

<i>President:</i>	Robin Wootton
<i>Secretary:</i>	Dafydd Lewis
<i>Treasurer:</i>	Peter May
<i>Acting Registrar:</i>	Dafydd Lewis
<i>Bulletin Editor:</i>	Phil Wilkins/Paul Sokoloff
<i>General Editor:</i>	Jacqueline Ruffle
<i>Advertising Secretary:</i>	Peter Hodge
<i>Exhibition Secretary:</i>	Wayne Jarvis
<i>Youth Secretary:</i>	Kieren Pitts
<i>Conservation Secretary:</i>	David Lonsdale
<i>Webmaster:</i>	Kieren Pitts
<i>ICN Editor:</i>	David Lonsdale
<i>Wants & Exchange:</i>	Peter May

THE AES WORKS TO PROMOTE AND DISSEMINATE ENTOMOLOGICAL KNOWLEDGE AND TO ENCOURAGE AN INTEREST IN ENTOMOLOGY AMONG THE YOUNGER GENERATION.

BULLETIN ADVERTISING RATES:

Advertising in the AES *Bulletin* is a cost effective way of reaching all AES members and many others who benefit from institutional subscriptions.

Full page £75 for each advert or £375 for six adverts in the same year.

Half page £50 for each advert or £250 for six adverts in the same year.

Quarter page £30 for each advert or £150 for six adverts in the same year.

NOTICE

It is to be distinctly understood that all views, opinions, or theories, expressed in the pages of this Journal are solely those of the author(s) concerned. All announcements of meetings, financial grants offered or sought, requests for help or information, are accepted as bona fide. Neither the Editor, the Officers and Council of the Society, nor its Trustees, can be held responsible for any loss, embarrassment or injury that might be sustained by reliance thereon.

Worldwide Butterflies www.wwb.co.uk



The new Goodden Light 12v for use in remote areas

Now
available
alone or
with the
**Moonlander
Moth Trap**

By studying the light output from MV, Robert Goodden has developed this sophisticated portable unit with aspects in common with MV, using so little power that it runs all night on a 7.5Ah battery. It attracts insects much better than actinic lights, even powerful ones requiring heavy batteries. **Rainproof and safe.** An in-line photoswitch puts the light on and off automatically. With this switch the unit can be used vertically or horizontally in any moth trap.

See www.wwb.co.uk for prices and more.

Moonlander Moth trap

Folds totally flat and is contained in a convenient slim shoulder bag. Very lightweight.

The Moonlander turns the principle of moth trapping upside down! Moths enter from the bottom and cannot escape through the top. Works as sheet and trap combined.

Better than traditional egg boxes, moths prefer the new **reticulated foam moth shelters** and cone.

The Moonlander is now available **without electrics, or with Battery, Mains or BOTH.**

See the options on www.wwb.co.uk



No escape through the top



Both trap and light are total innovations by Robert Goodden.

They are tried and tested in Europe and the tropics. In good conditions the results are spectacular.

Worldwide Butterflies website offers **Livestock and Equipment for breeding and study. Specimens for specialist collectors will be added as available.** The system enables you to see exactly what is currently available as the season changes. From time to time there are special **Sale Offers** of equipment, books, livestock and specimens - an ever changing situation.

www.wwb.co.uk Add it to your **Favorites** - check it regularly.

ATROPOS ANTIQUES*

PURVEYORS OF FINE COLLECTOR'S CABINETS

*Many of you will have met us at the AES London Fair
where we regularly show entomological cabinets for sale*



- We are specialist dealers in fine collector's cabinets.
- We can offer a choice of at least 30 cabinets, varying in purpose, construction, quality and price.
- We can supply both restored and un-restored cabinets and will undertake to restore and paper cabinets for clients.
- We are always interested in the purchase or exchange of cabinets, with or without a collection.
- Callers to our showrooms are always welcome by appointment.
- We offer a specialist collection and delivery service throughout the UK and have full expertise in the safe transportation of cabinets and collections.

We now have a dedicated cabinet showroom in Hartland, North Devon, and are happy to receive visitors to view the stock of over sixty cabinets including all the famous makers names. Please telephone or e-mail if you wish to call. Hartland is famous for it's coastline and dramatic scenery and was one of the last known haunts of the Large Blue.

We are very keen to buy whole insect collections and collecting paraphernalia ancient or modern. Please contact George Morgan by telephone or e-mail.

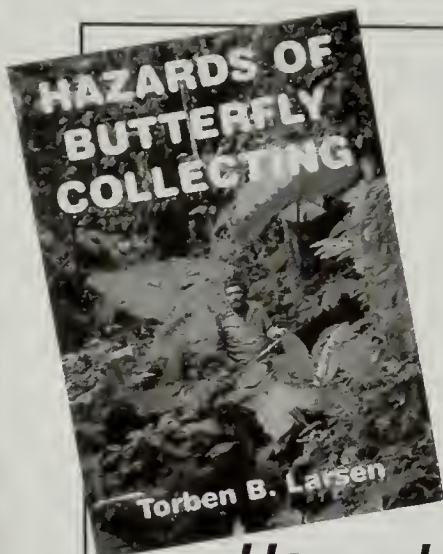
George Morgan

97, West Street, Hartland, N. Devon EX39 6BQ

T: 01237-441205/984 M: 07973 302190

E-mail: george@atropos.wanadoo.co.uk

* We are an independent dealership of 30 years standing and have no association with any similarly named business.



SPECIAL OFFER

£7.50 each

(inc. UK p&p)

£9.50 each (overseas)



Hazards of Butterfly Collecting

by Torben B. Larsen

Rearing Stick and Leaf Insects

by Ronald N. Baxter

ORDER YOUR COPY NOW FROM

Cravitz Printing Company Limited, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Tel: (01277) 224610 • Fax: (01277) 262815 • E-mail: CravitzPrinting@btconnect.com

Bulletin Cover



This month's cover picture shows the Dark-edged Bee-fly (*Bombylius major*) a widespread insect that starts to appear in warm weather in March.

There are several species of Bee Fly found in the UK, but *Bombylius major* is the most often encountered taking nectar through its long proboscis – often mistaken for a “sting” by members of the public. The larva is a parasitoid which feeds on the food stored, as well as the larvae of solitary bees or wasps. The female flicks her eggs near to a bee nest or plants them on flowers visited by the host insects. The developing larvae then make their way to the host nest or attach themselves to the bees or wasps to then be carried to the nest.

This specimen was photographed by Paul Sokoloff in his garden in North-west Kent.



ARE YOU MISSING OUT? THE ENTOMOLOGIST'S RECORD and Journal of Variation

Publishes notes, observations, articles and reviews, mainly on the Lepidoptera and Coleoptera of the British Isles and Europe.

Founded in 1890 by J. W. Tutt, and still going strong, we publish six issues a year – alternating with the *AES Bulletin*. This means there is now a first class entomological journal available every month of the year!

Our subscription price is £25 per year. If you would like to see a specimen copy, please send your name and address, and a couple of second class stamps to cover postage to:

The Editor, 14 West Road, Bishops Stortford, Hertfordshire CM23 2QP.

Write now! You never know what you could be missing.

The Entomologist's Record is a publication of the Amateur Entomologists' Society.

To ensure high standards of production we use Cravitz Printing Company.



Ian Johnson Natural History Books

(Pemberley Books)

Specialist in *Entomology* and related subjects
Also *Zoology*, *Ornithology*, *Botany* etc.

- CATALOGUES – Second-hand, Antiquarian and New books – free catalogues available on request.
- SPECIALIST BOOKSHOP at Richings Park, Iver, just to the West of London – easy to reach by car or train. Visitors are welcome to visit and view our stock, but please telephone first to confirm opening times.
 - * *By car*: only 10 minutes drive from the M25 via the M4 (Junction 5), or M40 (Junction 1). 15 minutes from Heathrow Airport.
 - * *By train*: 20 minutes from London Paddington to Iver Station on the Paddington-Slough Thames Trains service (2 trains every hour). We are 1 minute's walk from Iver Station.
- WEBSITE – view our stock on our website: www.pemberleybooks.com.
- BOOKS BOUGHT – We are always interested in purchasing books in our specialist field, particularly antiquarian, academic and scholarly works on insects and other invertebrates.

18 BATHURST WALK, RICHINGS PARK, IVER, BUCKS SL0 9AZ

Tel: 01753 631114 / Fax: 01753 631115 • e-mail: ian.johnson@pemberleybooks.com

The **Bulletin**

of the Amateur Entomologists' Society

Volume 70 • Number 495

April 2011

Editorial

After a particularly cold and harsh winter, it is nice to see that spring is well underway. The weather while I write this has been particularly warm. Hence many butterflies and damselflies have been on the wing. For me it seems to have been particularly good for Brimstones this year.

This issue of the *Bulletin* sees some slighter lengthier articles than of late, hence there are not too many in number. There is a bit of a Stag Beetle theme. Although these coleopterans are rare in Britain they are very charismatic, so I hope that the two papers are of interest to most members. Also, the techniques described can easily be replicated. Outside of the range of *Lucanus cervus*, it would be interesting to note if other species are attracted to artificial sap runs. These methods are similar to 'sugaring' for moths, so comparisons with such attractants might be rewarding.

I have also chosen to include a further piece by John Woolmer. These have been quite different from the *Bulletin's* usual content. Hence, I would be interested to hear what members think. Are they appropriate for this journal? The editorial team can be contacted in the usual ways (via the PO Box, website or email).

A variety of factors mean that this issue will probably reach you after the Annual Members' Day. Hopefully, many of you will have taken advantage of the new venue to enjoy a varied day.



NATURAL
HISTORY MUSEUM

26 MAY 2011

PRESENTED
ENTOM LIBRARY



SOCIETY MATTERS

'BIG SOCIETY'

As a charity run by volunteers, the AES has 'punched above its weight' for many years. Nevertheless, we are of course always dependent on the availability and ideas of members to take the Society forward. One welcome development is the fact that many members have expressed an interest in representing the AES at local outreach and field events, and some are interested in setting up local branches.

We also have a small number of vacancies on the AES Council, including the official role of Habitat Conservation Officer. Council members need to fulfil the Charity Commission's general eligibility criteria to be charitable trustees (e.g. serial axe-murderers need not apply!) but they do not have to wait until the AGM to be co-opted to serve on Council. Also, please note that Council members do not need to be expert entomologists!

By next year's AGM (April 2012) we expect further Council Officer posts to have become vacant. These will include the role of Honorary Treasurer. Thanks to the good offices of Peter May over a number of years the Society's finances have remained in good shape despite the unfavourable economic conditions. However, Peter intends to retire as Treasurer in April 2012. If any member with an accounting background – or simply 'a head for figures' – would like to apply to become our next Treasurer, please contact Peter well in advance to find out what is involved. The Treasurer's email address is treasurer@amentsoc.org. This is a good opportunity for someone to add 'AES Treasurer' to their curriculum vitae!

If any member thinks that he or she would be able to get involved with taking the Society forward in these or other ways please get in touch with the Hon. Secretary, Dafydd Lewis (secretary@amentsoc.org) in the first instance.

CHARITABLE DONATIONS

The Society would like to record its sincere thanks for the recent anonymous donation of £7000 to our funds, via the Redwing Trust. This comes at a good time and it will be put to good and prudent use. Thank you, whoever you are who made this generous donation! Subject to the donor being satisfied with how we have used the money, further such donations may follow.



We are also grateful to the estate of the Late Andy Callow for his generous bequest of £15000 to the Society, which will be used for specific new projects.

DOUBLE PAYERS

Some people seem to have paid their subscriptions twice. The Registrar will be writing to them in due course (he will also be writing to those people whose standing order payments do not reflect the current membership fees!). In the meantime, *please* can all members check that their payments to the Society are up to date and correct?

AES NEWSLETTER

The *AES Wants & Exchange List*, which was first published in that form as long ago as 1946, will be discontinued after this mailing of the *Bulletin*. It will be replaced by the new AES Newsletter.

Here are some key facts about the new AES Newsletter:

1. Like the Wants & Exchange List, the AES Newsletter will be sent out free of charge to current AES and Bug Club members.
2. It will be delivered **via email**.
3. For data protection reasons **members will need to sign up to request it**. Signing up is a simple process: you just need to visit the following website:
<http://www.amentsoc.org/newsletter/signup>
and follow the instructions. (You can also unsubscribe from the newsletter at any time).
4. The Newsletter will be sent out on a **monthly** basis, and will contain Society and member notices and event information as well as the traditional Wants & Exchange section where members can place Wanted, For Sale and Exchange advertisements. Full details of how to place an advert will appear in the first Newsletter.
5. **If you do not have email** we can print a hard copy of the newsletter and post it to you. If you do need a hard copy please write to AES Newsletter, PO Box 8774, London SW7 5ZG and provide your name, post code and membership number.

We hope that the AES Newsletter will help to improve communications in the Society and will be more timely and flexible than its predecessor, whilst also being more cost-effective.



AES EVENTS

Friday 3rd June

Quarterly AES Council Meeting

London, 6:00 pm – 9:00 pm

If any member would like to attend Council meetings as an observer – perhaps as a prelude to joining Council (we currently have a small number of vacancies) - please contact the Hon. Secretary in the first instance, for further information on the venue and arrangements (email: secretary@amentsoc.org or write to the Society's PO Box address).

Saturday 11th June

Annual Joint Meeting with the British Entomological & Natural History Society (BENHS)

The Pelham-Clinton Building, Dinton Pastures Country Park, Davis Street, Hurst, Reading, Berkshire RG10 0TH

Details of this event, organised by Peter Hodge, are being finalised. We anticipate that it will include examination of moth trap catches, a bug hunt and/or a workshop and tour of the BENHS building, with its new lecture room.

Further details will become available on the main AES website www.amentsoc.org or can be obtained from the AES Secretary.





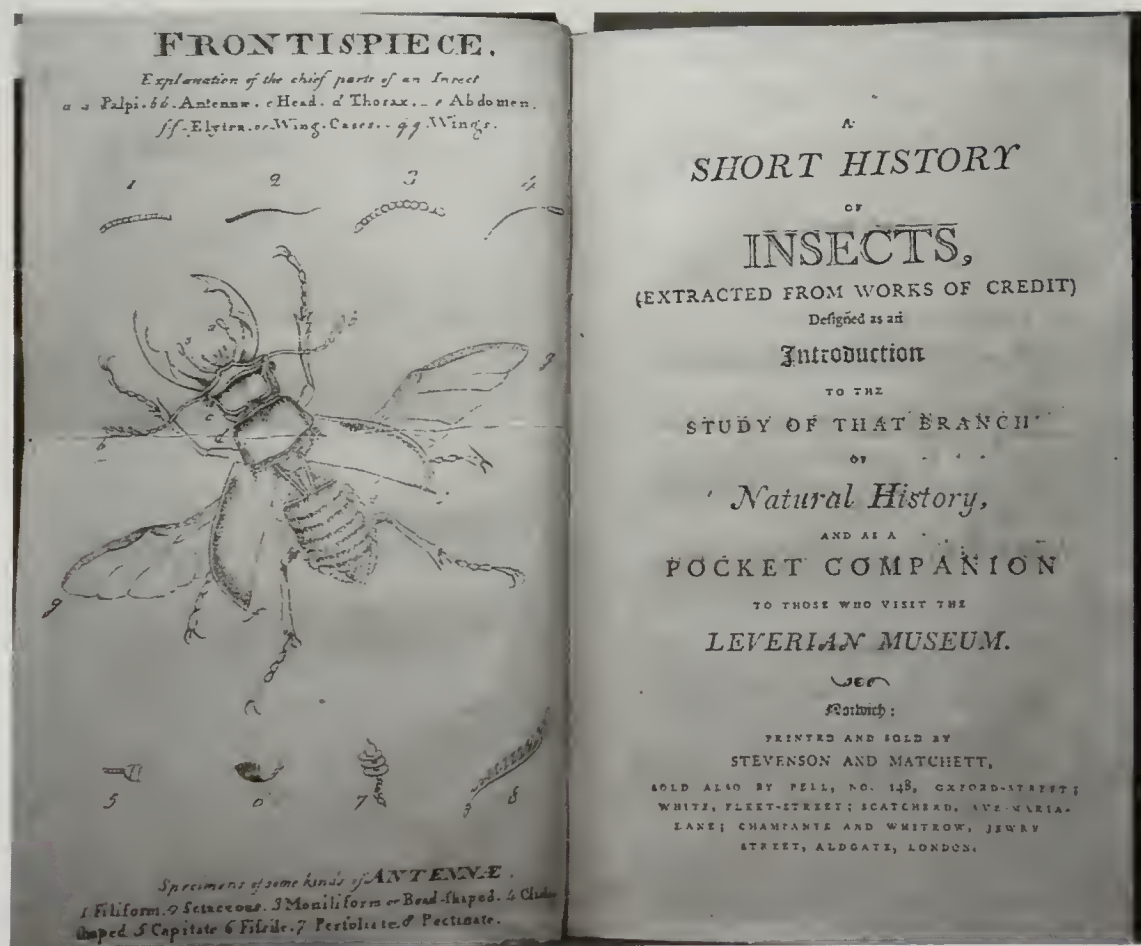
Another “Lady” entomologist from the past

by Paul Sokoloff

4 Steep Close, Green Street Green, Orpington, Kent BR6 6DS.

I was very interested to read Pauline Loven’s article in the December edition of the *Bulletin* on Lady Eleanor Glanville and the Butterfly Clap Net. The Glanville story is the stuff of legend, and I have always been amused by the fact that, after her death, her children attempted to overturn her will on the grounds that she must have been insane because she chased butterflies. I hope my own children have not read that story.

Reading this article reminded me of a small antiquarian book on insects that I picked up a few years ago. There was no author and no date, but the book had been rebound, and a label on the spine read “Lady Fenn, 1797”. The title of the book was *A Short History of Insects (extracted from works of credit) designed as an introduction to the study of that branch of Natural History and as a pocket companion to those who visit the Leverian Museum*. Yes – that was the title! It always





seems that, in times long ago, the smaller the book the longer the title. Measuring 10 x 16 cm, the book has 131 pages with seven uncoloured, engraved plates, three of which are folding, illustrating various insects.

So who was this "Lady Fenn", why did she write a book on insects, and what was the Leverian Museum? An exciting set of questions for an entomologist faced with long winter evenings and no insects! The "why" was fairly easy to find out: after a short dedication to the works of God, the Preface begins *"Natural History seems likely to become the amusement of our Wives and Children; but the enormous expence of books on that subject; and other reasons still more cogent, point out the expedience of an epitome for the use of Ladies and Young Persons: not to mention the convenience of a Manual to refresh the memory and assist the researches of an abler student . . ."* and later goes on to describe some stereotypes that today would make us wince, even if we did recognise them *" it depends whether your Son shall, through life, make it his sport to torment and destroy; or take delight in studying the nature of Animals; in order to discover the wisdom of God in forming them :- Whether your Daughter shall feel (or at least affect) aversion and terror at the sight of an Insect which she deems deformed; or pursue the rational amusement of learning how seemingly misshapen parts are suited to the modes of life allotted by its Maker."* So, this was a book for older children, and is a curious mixture of technical terms and quite readable descriptions of various insects, their life histories and habits.

Now to Lady Fenn. As this was an entomological book, even though published anonymously, the first step had to be a consultation with Freeman's "Handlist", an invaluable, if not always accurate, source of information for the book collector. Here it was, Lady Elleanor Fenn (good!) published in 1797 (also good!) with seven coloured plates (not so good, as mine were uncoloured). That was it. The book contained one set of engravings of butterflies and moths – an unidentifiable white butterfly, a hawk-moth that looked nothing like a hawk-moth and what looked like an Oak Eggar moth which in the text seemed to be described, worryingly, as a "cloaths-moth". Given that it did cover the Lepidoptera, even for only a couple of pages, there was chance the book was featured in Lisney's "Bibliography", a very useful but highly specialised reference book. Yes! An entry which gave a very brief biography of the author, pointing out that her name was, in fact, spelt Ellenor not Elleanor, and that the book was probably issued with plain plates (hurray!) with coloured versions being later additions. With the



bare details it did not take much effort to track down Percy Carol's summary of all her books and other works.

Ellenor Frere was born in 1744 (or maybe 1743) and married John Fenn in 1766. Her husband was knighted in 1787 after which she was entitled to be known as Lady Fenn. She died in 1813. She does not appear to have any other recorded connections with entomology apart from this book and another called *Cobwebs to catch flies*, which was intended for very young children, and which was published in 1783. She was a fairly prolific author of children's books, including an entire series called "Mrs. Teachwell's Library for Young Ladies", and engaged in a variety of charitable and philanthropic activities. Why she chose to write a book such as this, which requires an at least modest knowledge of entomology, is a bit of a mystery. Maybe there is a clue in the title of the book? *A Short History of Insects (extracted from works of credit) designed* I suspect that means she pinched all the content from other authors and adapted it for her book!

The end of the title of the book suggests it might help visitors to the Leverian Museum, although I can find no particular reason why this should be of much help, or of any direct connection to the museum. The museum was founded by Sir Ashton Lever in the early 1700s, and became established in Leicester Square, London in 1775. Lever was a prolific collector of natural history objects and other curios but his continual purchasing of specimens left him bankrupt, and he was forced to dispose of the museum, through a national lottery, in 1784. The museum moved locations a couple of years later but continued to struggle and was eventually closed, and its contents sold at auction in 1806. Interestingly, many of the collections were purchased by Edward Donovan, a famous English naturalist and entomologist.

I wonder if any other titled ladies wrote books on entomology?

References

- Freeman, R.B. (1980). British Natural History Books 1495–1900. A Handlist. Archon Books.
- Lisney, A.A. (1960). A bibliography of British Lepidoptera 1608–1799. The Chiswick Press.
- Loven, Pauline (2010). Lady Eleanor Glanville and the Butterfly Clap net. *Bull.amat.Ent.Soc.* **69** (493): 223–224.
- Percy, Carol. (2006). Disciplining Women?: Grammar, gender, and leisure in the works of Ellenor Fenn (1743–1813). *Historiographia Linguistica* **33**: 109–137.





In search of the Piedmont Anomalous Blue, *Polyommatus humedasmae*, and when disaster struck

by Tony Steele

57 Westfield Road, Barnehurst, Kent, DA7 6LR. (t.steele@ntlworld.com)

Being a regular summer visitor to Europe, a "hot list" of must-see and photograph butterfly species has been compiled, and the Piedmont Anomalous Blue *P. humedasmae* (Plate 1) was one of them. After contacting Matt Rowlings on the location for this species, plans were duly made. With my wife Margaret we set off for the drive across France to our holiday destination, Le Praz near Chamonix, arriving during the first week of July 2004.

The location for this endangered lycaenid is a high alpine valley somewhere near Aosta in Italy. After passing through the Mont Blanc Tunnel and many consultations of the map we eventually arrived at our destination. Parking the car, the locality was soon reached across a Roman bridge and immediately a sign greeted us banning nets and collecting. The valley side was swarming with butterflies, yet despite much careful searching there was no sign of the target species, and I came to the conclusion that their emergence had not yet begun. There was plenty of other butterflies though, which included Wood White *Leptidea sinapis*, Apollo *Parnassius apollo* (Plate 2), Knapweed Fritillary *Melitaea phoebe*, Spotted Fritillary *M. didyma*, Pearly Heath *Coenonympha arcania*, and a new one for me, Great Sooty Satyr *Satyrus ferula*. The rest of our stay was spent walking in the Chamonix Valley noting such species as Mountain Fritillary *Boloria napaea*, Mazarine Blue *Cyaniris semiargus*, Alpine Heath *C. gardetta* and Grizzled Skipper *Pyrgus malvae*.

It was not until 2007 that the opportunity arose for another visit, staying on this occasion at Les Tines, also near Chamonix. On this trip we arrived the third week in July. The first few days were spent locally seeing Black-veined White *Aporia crataegi*, Moorland Clouded Yellow *Colias palaeno*, Queen of Spain *Issoria lathonia* and Blind Ringlet *Erebia pharte*. It was now time to try our luck for the Piedmont Anomalous Blue *P. humedasmae*. We arrived at the site and as we made our way towards the bridge found the doors of an ancient barn were covered in Four-spotted Footman moths *Lithosia quadra*, with 28 being counted. Crossing over, a Camberwell Beauty *Nymphalis antiopa* was sunning itself on the path. Making our way along the valley side



The hostile sign which greeted us upon our arrival.



The Valley-Aosta.



we noted, amongst others, Great Banded Grayling *Brintesia circe*, Marbled White *Melanargia galathea*, Adonis Blue *P. bellargus*, Common Blue *P. icarus*, Berger's Clouded Yellow *C. alfacariensis* and suddenly there it was, a freshly emerged Piedmont Anomalous Blue *P. humedasaе*. Careful searching revealed another two, these also freshly emerged. Photos were taken and we returned to France via the St. Bernard Pass and Switzerland.

Mission accomplished we now visited the normal tourist spots such as the Aiguille du Midi. This is reached by an almost vertical cable car from Chamonix. Whilst enjoying the views at an altitude of 12,602 feet (3842m) a Small Tortoiseshell *Aglaïs urticae* was observed. We now boarded the cable car to cross the spectacular Geant Glacier to Helbronner on the Italian border. This was when disaster struck, the memory card in my camera decided to erase itself, and with it all my butterfly photos. There was only one solution, to return to Italy and retake the photographs. So early next day, it was through the Mont Blanc Tunnel and back to the valley again. The Four-spotted Footman *L. quadra* were still there, and also on the ground around, with an increased count of 33. Proceeding along the valley side Piedmont Anomalous Blue *P. humedasaе* seemed to be everywhere. In one short section a remarkable 18 were counted. Photographs were taken, and to err on safety the memory card was changed. Additional species seen included Green-veined White *Pieris napi*, High Brown Fritillary *Argynnis adippe* and Meadow Brown *Maniola jurtina*. The following day we set off for the long journey home, very contented.



Attraction of stag beetles with artificial sap in Sweden

by Nicklas Jansson

County Administration Board, Nature Conservation, 581 86 Linköping, Sweden.

nicklas.jansson@lansstyrelsen.se

Background

Stag Beetle populations (*Lucanus cervus*) are in decline and the species is endangered in many parts of Europe. The main reason for this is habitat destruction. In most cases there is too little dead wood in and on the ground. In northern countries another reason is the denser and darker landscape caused by planting of Norway spruce and less grazing from cattle, making earlier suitable sites more cold and wet. For this reason it would be of great interest to find a method to attract the stag beetles and monitor the populations.

As the Stag Beetle is in the Habitat Directive and its status must be regularly reported to the Union, it would be of great interest to find a good method to monitor the populations. Despite the size of the beetles, it is not easy to find them out in field. Stag Beetles can sometimes be seen sitting near sap runs on tree trunks, often old oaks, so the idea was to try to mimic the sap and produce it artificially. From the character of the smell, our hypothesis was that we should produce something sweet and under fermentation. We believe that the chemical component in the sap is important so we decided to use oak leaves and inner bark as main components in the experiment.

Material and methods

In the middle of May 2005, we collected young oak leaves from young oaks and inner bark from a newly felled oak with a trunk diameter of 30cm. We used an axe and a sharp knife to scrape off the wet phloem (Figure 1).



Figure 1. Scraping of the inner bark of a newly felled oak with a sharp knife.



The equipment and ingredients used were the same as for producing wine in your home. The products used in the first step were sugar (special for wine production), wine yeast and pecto-enzyme and water (Figure 2). The leaves were cut in small pieces with a mixer (Figure 3).



Figure 2. The chemicals used in the experiment is used for wine production.

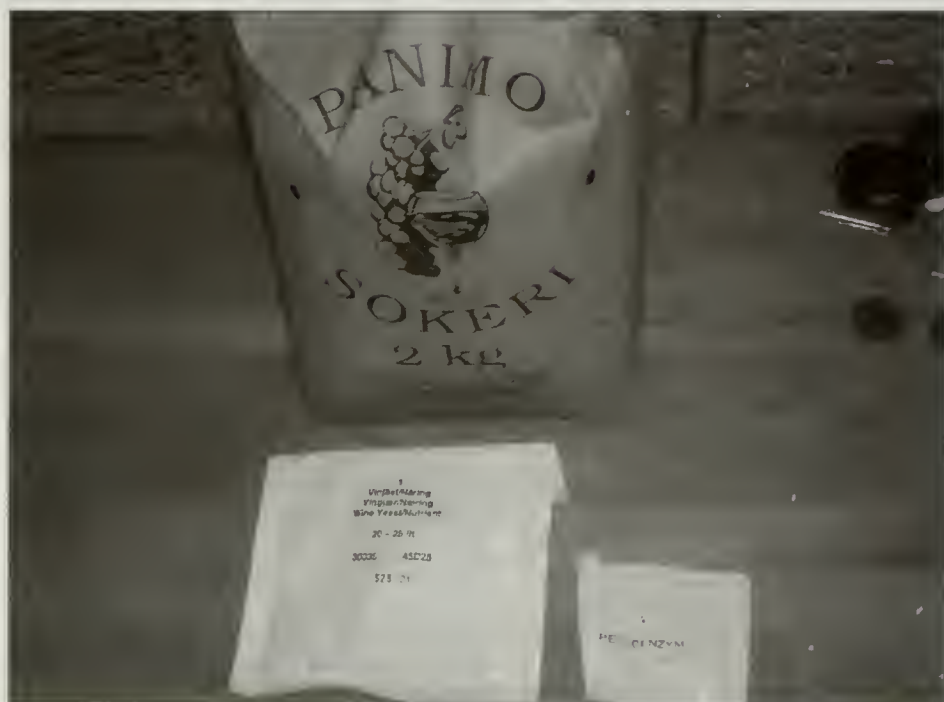


Figure 3. The mixer used for cutting the oak leaves in to small pieces.

All equipment was washed with hot water before use to decrease the amount of bacteria and fungal spores and for the same reason the water added to the leaves and inner bark was boiling. For each plastic bucket with leaves or inner bark of one kilogram we added four litres of water, one kilogram of sugar, one spoon of pecto-enzyme

These solutions where locked in the buckets and the CO₂ produced during the process passed the water lock (Figure 4). This process was over in four to five days when the bubbling had stopped (the sugar was consumed).



Figure 4. The equipment used for the fermentation process.

The day before used in the field half of the liquid was removed from the bucket and 0.3 litres of syrup, 0.5 litres of saw-dust from oak and 0.5 litres of porridge made of oat grain was added. These solutions were added in the afternoon on special “feeding stations” (Figure 5). The mixture dried out during the evening so we added some more after 2-3 hours during the evening.



Figure 5. Adding the artificial sap run mixture to a feeding station.

In the experiment 12 feeding stations, spread at over five sites were used. Half of the stations had the leaf solution and half had the inner bark solution (Table 1).

Table 1. The number of feedings stations and natural sap runs at the five studied sites.

	Site 1	Site 2	Site 3	Site 4	Site 5
No. of feeding stations (leaf)	1	1	1	2	1
No. of feeding stations (innerbark)	1	1	1	1	2
No. of natural sap runs			1	1	1



The sites were all forest edges, facing south or south west. During four nights between 4 and 19 of June the test was performed. The chosen nights had a temperature over +12°C at 20.00. The studied sites are situated 25-40km south of the city of Linköping in southern Sweden (Figure 6).

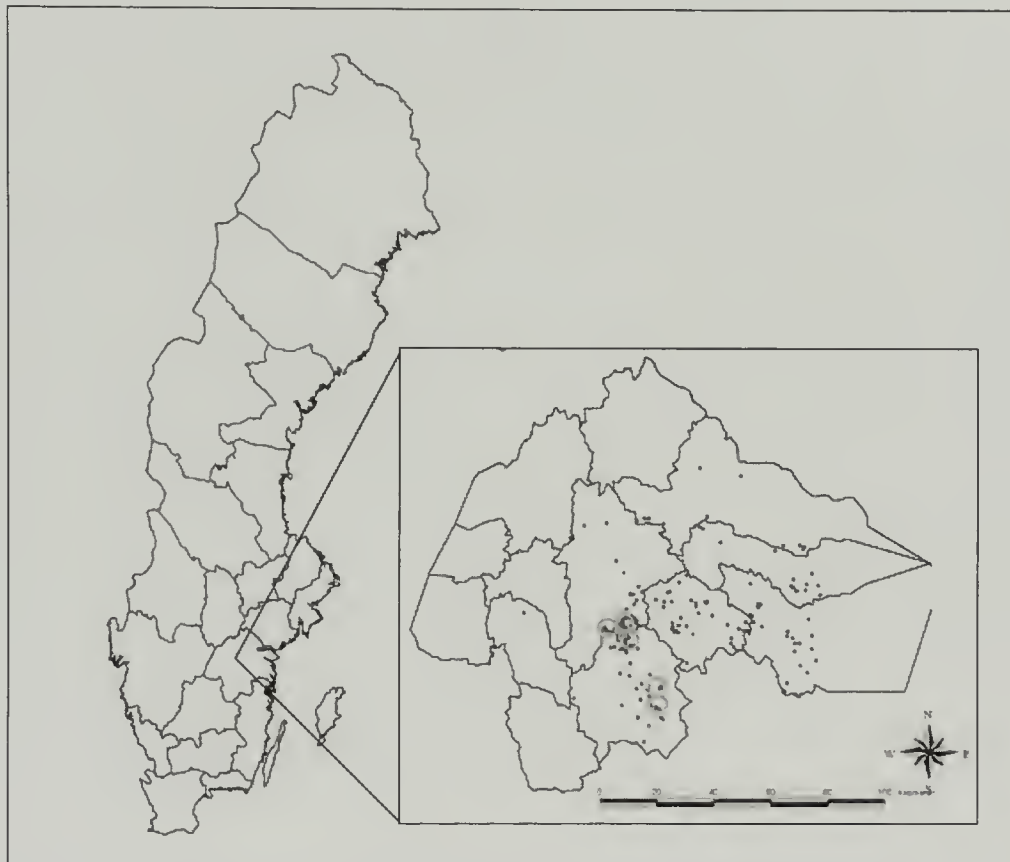


Figure 6. The positions of the five studied sites in Sweden. The dots on the map are places with reports of stag beetles the last 5-10 years.

Stag Beetles had been reported from these places during the last five to ten years. The stations were visited every hour from 19.00 and 24.00 and in the evenings we also visited three natural sap runs in the neighbourhood. The stag beetles found was marked with green dots (Plate 3). The pencil used is called UNI PAINT Marker PX-21 made by Mitsubishi Pencil Co., LTD. in Japan.

Result

In total 11 beetles were found during the four nights. Of these five specimens (four males and one female) visited the feeding stations and six visited (four males and two females) the natural sap runs. It was the solution with leaves that worked best and four out of five beetles



were seen at these stations. During the evenings also six males were seen flying. All the observed beetles were seen in dusk around or after 22.00.

Table 2. The number of stag beetles observed.

	Site 1	Site 2	Site 3	Site 4	Site 5
No. of males on feeding stations (leaf)	1	1		1	
No. of males on feeding stations (innerbark)					1
No. of males on sap runs				1	3
No. of females on feeding stations (leaf)				1	
No. of females on feeding stations (innerbark)					
No. of females on sap runs					2
No. of flying males				2	4

Conclusions

As this was only a small scale experiment it is hard to draw any clear conclusions. Stag Beetles show some interest of the artificial sap mixture. The one with oak leaves seems to work a bit better than the one with inner bark. It is possible that it had worked better in higher temperatures and it is also possible that they are more interested in sap later in their lives. From the results we had we conclude that the method is not effective enough to be used for monitoring stag beetles. It can possibly help finding a population, but for capture, mark, recapture studies for population measures it is not effective enough.





Sugaring for stag beetles – different feeding strategies of *Lucanus cervus* and *Dorcus paralellipipedus*

by Maria Fremlin (12447)

25 Ireton Rd, Colchester, Essex CO3 3AT, UK

<http://maria.fremlin.org>

and Paul Hendriks

Hoofdstraat, 243 9828 PC Oostwold, The Netherlands

bendriksmast@home.nl

Introduction

The stag beetle *Lucanus cervus* (L.) (Coleoptera: Lucanidae) will feed on sugary liquids either from sap runs or ripe juicy fruits; an old Kent name for stag beetles, cherry-eaters, attests to their strong liking for this fruit by males in particular (Krenn *et al.*, 2002; Fremlin, 2004). They imbibe liquid with their feathery tongues, the two central setaceous parts between their mandibles. In some cases in the Netherlands, on sap runs up to 20 beetles have been seen licking sap, mating and males fighting (Gerrit Rekers, pers. comm. and seen by PH). In general the females stay for a few days, whereas males stay much longer.

The large males often stand over the females, while smaller males try to get hold of the females and mate with them. The large males chase away the smaller ones, but sometimes a smaller male succeeds in mating with a female. Gerrit Rekers found several dead males in the vicinity of a sap run.

In the UK, however, there are no records of stag beetles *L. cervus* gathering at sap runs although there are some from continental Europe (Chop, 1893; Tippmann, 1954; Mamonov, 1991; Tochtermann, 1992; Jansson, this issue). MF has observed in her urban area courtship behaviour very similar to that at sap runs, but in the vicinity of breeding sites, or freshly cut trees. These gatherings occur in the evening at the beginning of the season and are of very short duration. Males may also gather and fight for females in crevices; they will come back as long as the females stay there even though they cannot mate with them (Fremlin, 2003; 2009; unpublished).

Natural gatherings of stag beetles such as may occur at sap runs enable direct information of their behaviour to be collated. We can determine their fidelity and comings and goings with some ease. In 2009 PH asked MF to set up an artificial sap run in her garden in order to observe them at close range throughout the flight season. We chose



maple syrup as an attractant because stag beetles are fond of it. In captivity the males feed on it frequently and the females do so when they appear in between egg laying sessions. Furthermore, maple syrup is the only tree sap that is readily available. After two seasons of intensive field work we have only partial answers to our primary interest, but unexpectedly gathered interesting information about the lesser stag beetle *Dorcus parallelipipedus* (L.)

Methods

Two patches, each approximately 11x13 cm², were cut from a terrycloth towel and were nailed to a couple of cherry stumps in Colchester, Essex at TL986244 in the garden of MF. The cherry trees were felled respectively in 2002 and 2005; the area has been an active breeding ground for some time for both *L. cervus* and *D. parallelipipedus*. One patch was placed on the top of the 2002 stump (height 70 cm, diameter 30 cm) and the other was placed half way up the trunk of the 2005 stump (height 76 cm, diameter 53 cm); they were left *in situ* until the following year. In 2010 a third patch was placed on



Figure 1. Female *D. parallelipipedus* surrounded by black garden ants (*L. niger*). 07/08/2009, 2203 hrs.



Figure 2. Male *D. parallelipedus* under an old lady moth (*Mormio maura* L.) with black garden ants (*L. niger*) and another old lady moth in the background. This male appeared on four occasions. 05/08/2009 2203 hrs.

a walnut tree at a height of 145 cm. This tree is 90 cm from the stumps. The general area of the stumps faces south.

From mid May until early September the patches were refreshed daily at about 1900 hrs as follows. They were first sprayed with water with a spray gun and then maple syrup was applied with a drinking straw. The drinking straw was kept inside a small jar together with a small amount of syrup, covered with cling-film and refrigerated. A 330 g bottle of Sainsbury's Pure Canadian Maple Syrup was sufficient for one season.

The patches and surrounding street and alleyway were monitored daily from 2130 hrs; the overall area covered was roughly 40 m x 210 m. In 2010 this route was extended to include monitoring of a freshly cut stump in a nearby street, about 120 m away (Fremlin, 2010a).

All times are quoted in British Summer Time (BST).

Captured beetles were measured with a ruler, weighed with a Salter Pocket Electronic Diet Scale model 1250 with 0.1 g increments, marked and released. Their elytra were punctured with a needle following



Mendéz (2008). In the first year these punctures were painted over with a Tippex pen, but this was replaced in 2010 by an Edding 750 marker, coloured white for the males and pink for the females. This extra marking speeded up the identification of recaptures in the dark, particularly *D. parallelipedus* which are not as strongly dimorphic as *L. cervus*.

Results

Stag beetles shared the maple syrup patches with quantities of black garden ants *Lasius niger* (L.) and woodlice, both of the latter appearing as soon as the patches were recharged. Slugs came later on in the evening and in 2009 moths visited (Figures 1-3). **2009 season**



Figure 3. Juvenile slug (*Arion ater* L.) crawling over a feeding male *L. cervus*, plus woodlouse (*Oniscus asellus* L.) and black garden ants (*L. niger*). 14/07/2010 2219 hrs.

Nocturnal feeding *L. cervus* were generally unresponsive to sound or light, or even a slug (Figure 3). In contrast *D. parallelipedus* were very sensitive to sound and in particular to light and thus had to be photographed and caught quickly. In both seasons in the monitored areas generally, there were far more sightings of *L. cervus* than of *D. parallelipedus* but by the stumps or on the syrup patches the reverse was true (Table 1).



Plate 1. Piedmont Anomalous Blue, *Polyommatus humedasaе*.

Photo: Tony Steele



Plate 2. Apollo *Parnassius apollo*.

Photo: Tony Steele

(Plates 1 and 2 – see article In search of the Piedmont Anomalous Blue, *Polyommatus humedasaе*, and when disaster struck (Page 48)).



Plate 3. A marked stag beetle male visiting a natural sap run and a copulation near a feeding station.
Photos: Nicklas Jansson
(See article: Attraction of stag beetles with artificial sap in Sweden (Page 51)).



Plate 4. Upland Green Bush Cricket *Tettigonia cantans* found in damp meadows near the village of Niederau, Tyrol, Austria.
Photo: Phil Wilkins



Plate 5. Club-legged Grasshopper *Gomphocerus sibiricus* from high alpine pasture.

Photo: Phil Wilkins



Plate 6. Large Mountain Grasshopper *Stauroderus scalaris* in rocky alpine field.

Photo: Phil Wilkins



Plate 7. The impressive Wart-biter *Decticus verrucivorus* on thistle. Photo: Phil Wilkins



Plate 8. A striking male Green Mountain Grasshopper *Miramella alpina* found near the summit. Photo: Phil Wilkins

(See article; Grasshoppers in the Tyrol, 2010 (page 68))



Season	16 May – 9 September 2009				16 May – 5 September 2010			
	No. of marked beetles	Sightings in the monitored area	Sightings by the stumps	Sightings on the syrup patches	No. of marked beetles	Sightings in the monitored area	Sightings by the stumps	Sightings on the syrup patches
<i>L. cervus</i>								
Male	51	99	16	5	58	146	28	4
Female	33	68	9	0	53	107	28	2
Unknown		32	3	0		42	1	0
Total	84	199	28	5	111	295	57	6
<i>D. parallelipedus</i>								
Male	17	55	42	34	13	69	45	31
Female	17	33	13	11	19	32	11	3
Total	34	88	55	45	32	101	56	34

Table 1 – Stag beetle sightings during 2009 and 2010, Colchester, Essex.

Lucanus cervus

L. cervus emerged on 19 May and between 10 and 23 June there were five feeding sightings of three males. One was observed three times on the horizontal patch, twice in the same day; all males had been captured first nearby. There were no sightings of feeding females. The longest time between recaptures was 37 days for a rather worn female in the general area of the stumps which travelled a distance of at least 95 m. A male was recaptured dead (trodden) after nine days having travelled a distance of at least 59 m.

Dorcus parallelipedus

D. parallelipedus was first sighted on 19 May and they fed actively from 29 May until 31 August. The majority were males of which 42 were in the general area of the stumps and 34 at the feeding patches where nine males came regularly, some many times and the most assiduous recaptured seven times. Some feeding males were first captured elsewhere, one travelling at least 70 m over 20 days, another 107 m over four days.

There were significantly fewer sightings of feeding females, namely 11 representing four individuals. Two of these were also first captured



elsewhere, one having travelled at least 79 m in 60 days, another 32 m in nine days.

2010 season

Lucanus cervus

In spite of a late first emergence on 3 June 2010, this was a good year for *L. cervus* and there was a doubling of sightings in the general area of the stumps. However, numbers of feeding sightings stayed about the same as those of 2009 and were late. Between 12 and 23 July four males were sighted once and one was spotted feeding in the morning. Another male was seen twice, close to the syrup patches.

There were two sightings of feeding females, both rather worn; one on 25 July (Figure 4) and the other one at the end of the season on 16 August was found dead nearby four days later.



Figure 4. Female *L. cervus* with rather worn front tibiae teeth. 25/07/2010, 2159 hrs.

All individuals were first captured within 5 m of the general area of the stumps.

The longest time between recaptures was by the freshly cut stump for beetles that had been first captured there; a dead male (trodden)



after, 36 days and a very worn female after 19 days, she died the next day.

Dorcus parallelipipedus

D. parallelipipedus was first sighted in the area on 18 May and the feeding sightings were from 7 June until 30 August. The total was 34, slightly less than the previous year, due to a decrease in female sightings. Otherwise the total number of marked beetles and sightings was about the same as in 2009.

This year there were no long distance recaptures; the maximum was about 5 m after six days for a female, which settled into a bag of decomposing sawdust.

Very unexpectedly there were two recaptures from the previous season.

A female first captured in a stump elsewhere on 12 August 2009 was found dead (trodden) in the study area on 5 June 2010, 297 days later.

Secondly, a male from 2009 was sighted again on 27 July 2010 366 days later at the same spot, the 2005 stump. It was sighted feeding on the vertical syrup patch twice in 2009 and eight times during 2010.

There were only three other males seen frequently at the syrup patches, of which one appeared 14 times. Two females came at the beginning and end of the season, the latter was sighted twice underneath the vertical patch, a favourite place for the males as well.

Discussion and Conclusion

The proportion of *L. cervus* individuals that came to feed was extremely low, a disappointing result considering how healthy the local population is.

Thus with this experiment we were unable to replicate what reportedly happens at sap runs in continental Europe because the females only came at the end of the season, one probably between an egg laying session and the other at the end of it. The males fight for the females at the beginning of the season when in peak condition at a time when the females tend to make themselves scarce. As the season progresses females seek oviposition sites and males tend to lose interest in them (Fremlin, 2009; 2010a,b).

It could well be that the success in attracting several beetles to a sap run is more dependent on the presence of females at it than the presence of sap *per se*. The appearance of a freshly emerged female at



a sap run may be the crucial factor in instigating an assemblage. Female *L. cervus* pheromones are very powerful; males can detect receptive females from a distance of about 50 m (Deborah Harvey, pers. comm.).

Moreover, the maple syrup patches employed by us were a very poor imitation of natural sap runs because they soon dried up. Natural sap runs attract a variety of microorganisms which ferment the sugars in the sap and may even stimulate the sap flow; this type of microhabitat attracts a spectacular array of invertebrates including lucanids (Tippmann, 1954; Ratcliffe, 1970).

In laboratory controlled experiments with *L. cervus* only half of the males and less than a third of the females were attracted to maple syrup (Harvey *et al.*, 2011). And in a terrarium PH observed that both males and females *L. cervus* had to get 'used' to the presented syrup; the attraction was not immediate. However, the attraction between males and females was very strong; males were observed actively looking for females and even locate them when they were just under the surface. Once they got used to the syrup it was readily taken.

Our results fit well with the extreme scarcity of feeding records in all major *L. cervus* surveys in the UK (Bowdrey, 1997; Percy, 2000; Smith, 2003). The limited need to feed during the adult stage is not uncommon for short lived saproxylic species within the superfamily Scarabaeoidea (Arrow, 2005; Henschel, 1962) and it has been suggested that *L. cervus* can survive perfectly well on its fat reserves during its short flight season. They then die at the end of it (Harvey & Gange, 2003). Klausnitzer (1995) mentions that their reproductive behavior is initiated by females who seek out sap runs especially at oak or beech, or create one themselves. Bark gnawing behaviour is a very rare occurrence with *L. cervus* for which we have found two citations, namely in the Netherlands (Smit & Krekels, 2008) and in Italy (Simon Newell, pers. comm.). A Japanese stag beetle deliberately pinches the bark of trees in an attempt to create sap runs (Hongo, 2005).

Altogether there are several aspects of the reproductive behaviour of *L. cervus* at natural sap runs that deserve to be studied further.

The present study shows clearly that *D. parallelipedus* feeds at sap much more than *L. cervus*, particularly the males at a time when the females were probably ovipositing (Table1).

Unlike *L. cervus*, adult *D. parallelipedus* spend a great deal of their life in, or very near, the host tree. Placing a cloth on a host stump

guarantees their appearance and explains why the baited cloths were more frequently visited by them. The mark-recapture results indicate that, like *L. cervus*, the adults will move around during the breeding season and they live much longer. PH kept individuals that had been captured in August 2005 for three years and when he released them they were still in good condition. Thus a species that can live as an adult for at least two breeding seasons is likely to have a different feeding strategy from one that lives for only for two to three months.

In rearing *D. parallelipedus* PH revealed further interesting information about its feeding preferences. Males and females fed on the maple syrup all the time, but there was very intensive feeding immediately after overwintering which could last for days. Later in the season during July and August this decreased.

When adults are present in host trees the number of larvae in them seem considerably reduced compared to when adults are absent (PH, pers. obs.) Up to now there are only direct observations of females feeding on their own larvae. Cannibalism also occurs amongst larvae when they are in bad condition and have little decayed wood to feed on and this seems to be the case for other *Dorcus* species (Tanahashi & Togashi, 2009). We found that adults ignored frequently presented yellow mealworm (*Tenebrio molitor*) larvae and dead *Bombus* larvae. They did feed readily on the remains of a dead *L. cervus* female. One female started to feed directly on the remains at dusk and was still thus engaged the following morning (Figure 5).



Figure 5. Female *D. parallelipedus* feeding on the carcass of a female *L. cervus*. 25/8/2010.



This intensive feeding continued for several days at intervals. The fact that adults fed only on other lucanids, including their own kind, is interesting. As adults and larvae can live together in large numbers in decayed wood, cannibalism would be an easy way to sustain protein need during relatively long adult stage. This needs to be investigated further.

Sugaring for stag beetles is a useful activity which, in conjunction with marking, may throw more light on *D. parallelipedus* adult longevity. Survival in the wild for three seasons seems to us not impossible

Acknowledgments

We are grateful to Klaus Kretshmer for the advice on markers and to Peter Wilson for his help with the slug and woodlouse identification. Paul Whitehead most generously commented and corrected the manuscript, and we also wish to thank Brett Ratcliffe and Arno Thomaes for stimulating discussion.

References

- Arrow, G.J., 2005. *Horned Beetles, a Study of the Fantastic in Nature*. Natural History Publications (Borneo), 183 pp.
- Bowdrey, J., 1997. The stag beetle *Lucanus cervus* L. (Coleoptera: Lucanidae) in north-east Essex: Results of the 1996 Colchester "Search for Stag Beetles" survey. *The Essex Naturalist*, 14: 79-88.
- Chop, K. 1893. Aus dem Insectenleben. *Die Gartenlaube, Illustriertes Familienblatt*, 33: 528. Leipzig. URL http://de.wikisource.org/wiki/Aus_dem_Insectenleben
- Fremlin, M., 2003. A Stag Night in Colchester. URL http://maria.fremlin.org/stag_night
- Fremlin, M., 2004. What do stag beetles eat? URL <http://maria.fremlin.de/stagbeetles/drinking.html>
- Fremlin, M., 2009. Stag beetle (*Lucanus cervus*, (L., 1758), Lucanidae) urban behaviour. In Saproxylic beetles – Their role and diversity in European woodland and tree habitats. *Proceedings of the 5th Symposium and Workshop on the Conservation of Saproxylic Beetles, Lüneburg (Germany)*, 14-16.06.2008. Buse J., Alexander K.N.A., Ranius T. & Assmann T. (Eds). *Pensoft, Sofia- Moscow*: 161-176.
- Fremlin, M., 2010a. Observation of female stag beetle on a freshly cut stump. *Nature in North-East Essex*, 2010, 36-39.
- Fremlin, M., 2010b. Weather-dependence of *Lucanus cervus* L. (Coleoptera: Scarabaeoidea: Lucanidae) activity in a Colchester urban area. *Essex Naturalist (New Series)*, 27: 214-230.
- Harvey D.J. and Gange A.C., 2003. The Private Life of the Stag Beetle (*Lucanus cervus*). *The Bulletin of the Amateur Entomologists' Society*, 62: 240-244.
- Harvey, D.J., Hawes, C.J., Gange, A.C., Finch, P., Chesmore, D. & Farr, I., 2011. Development of non-invasive monitoring methods for larvae and adults of the stag beetle, *Lucanus cervus*. *Insect Conservation and Diversity*, 4: 4-14.



- Henschel, H., 1962. *Der Nashornkäfer (Oryctes nasicornis L.)*. Die Neue Brehm-Bücherei; 301, 77 pp. Westarp, Hohenwarsleben.
- Hongo, Y., 2005. Diurnal activity of the Japanese stag beetle *Prosopocoilus dissimilis okinawanus* Nomura (Coleoptera, Lucanidae). *Elytra*, 33: 245-257.
- Klausnitzer B., 1995. *Die Hirschkäfer*. Die Neue Brehm-Bücherei Bd; 551, 109 pp. Westarp Wissenschaften Magdeburg.
- Krenn, H.W., Pernstich A., Messner T., Hannappel U. & Paulus H.F., 2002. Kirschen als Nahrung des männlichen Hirschkäfers, *Lucanus cervus* (Linnaeus 1758) (Lucanidae: Coleoptera). *Entomologische Zeitschrift*, 112/6: 165-170.
- Mamonov, G., 1991. The Great European Stag Beetle - its Past and its Future. *Bulletin of the Amateur Entomologist's Society*, 50: 157-163.
- Mendéz, M., 2008. How to mark Lucanidae for studies of capture-mark-recapture. URL <http://entomologia.rediris.es/gtli/engl/four/d/marking.htm>
- Percy, C., Bassford, G. & Keeble, V., 2000. *Findings of the 1998 national stag beetle survey*. Robb, C. (ed). People's Trust for Endangered Species, London, UK: 1-48.
- Ratcliffe, B.C., 1970. Collecting slime flux feeding Coleoptera in Japan. *Entomological News*, 81: 255-256.
- Tanahashi M. and Togashi K., 2009. Interference Competition and Cannibalism by *Dorcus rectus* (Motschulsky) (Coleoptera: Lucanidae) Larvae in the Laboratory and Field. *The Coleopterists Bulletin*, 63(3): 301-310.
- Tippmann, F. F., 1954. Neues aus dem Leben des Hirschkäfers. *Entomologische Blätter*, 50, 175-183.
- Tochtermann, B. von E., 1992. Neue biologische Fakten und Problematik der Hirschkäferförderung. *Allg. Forstzeitschr*, 6: 308-311; München.
- Smit, J.T. & R.F.M. Krekels, 2008. Vliëgend hert in Mander. Beheerplan 2009 - 2013. - EIS-Nederland en Bureau Natuurbalans - Limes Divergens, Leiden - Nijmegen.
- Smith, M.N., 2003. *National Stag Beetle Survey 2002*. People's Trust for Endangered Species, London, UK: 1-14.





Grasshoppers in the Tyrol, 2010

by Phil Wilkins

Beech House, Church Road, Stockton, Beccles, Suffolk NR34 0HJ.

In mid-August 2010, we visited the Tyrol as a family for a walking holiday. I was hoping that the timing would allow for searches for some of the alpine specialist orthopterans. With this in mind, I packed my rather old and battered copy of Bellman's *Field Guide to Grasshoppers and Crickets of Britain and Northern Europe*. It does not really cover the right geographical area, but I hoped it would suffice.

Our base for the week was the small village of Niederau in Wildschonau Valley. This is a popular destination, though more for its overall beauty than any particular wildlife interest. The valley itself is typically Alpine with rich meadows. There is good gradation of altitude and plenty of rough ground for invertebrates. In addition, the agriculture does not appear to be too intensive. The desire to maintain the area's rugged beauty has meant there is not too much development.

Unfortunately, the weather was not kind to us. There was an unseasonable amount of rain and it was cooler than is typical for August. Hence insect studying would have to be restricted to the snatches of sunshine and warmer periods. Fortunately there were quite a few of these. We also managed to travel during the poor weather, so we were in the prime sites at the best times.

Acquainting ourselves with the flowery pastures on the lower slopes nearer the villages, we found a good array of species. The bushes and brambles yielded the common British species the Dark Bush Cricket *Pholidoptera griseoptera*. However, more common was the similar Alpine Dark Bush Cricket *P. aptera*. The latter has a very distinctive pale rear edge to the pronotum. The song is loud and individuals were easy to find, but difficult to photograph or catch. Another impressive species that proved easier to photograph was the Upland Green Bush Cricket *Tettigonia cantans*. This is like a short-winged version of the Great Green Bush Cricket *T. viridissima*, which was absent from the valley.

True grasshoppers were abundant and belonged to several species. In the higher, dry meadows we heard the distinctive harsh 'trrrt' songs of the Club-legged Grasshopper *Gomphocerus sibiricus*. The males are particularly handsome beasts with characteristic flattened front tibiae that account for the English name. Also in the higher, rocky slopes, my



daughter Eleanor found the *bracyptera* form of the Two-spotted Ground-hopper *Tetrix bipunctata*. The clear dark marks on the pronotum made identification easy.

My children have been trained from an early age to catch 'grasshoppers'. They have, over time become quite adept at this skill. The hardest part is to locate the stridulating insect. This is particularly tricky when the field is full of grasshoppers in full song. The secret is to hone in on one individual and disregard all others. However, it is hard to remain focused on one and not to keep changing your mind and skipping from one to another. Once the target is finally seen, it can then be caught. This is done between both cupped hands. The insect will try to evade capture by leaping. Hence it is important to attempt to anticipate which direction the grasshopper will fling itself.

I hope that the preceding paragraph goes some way to portraying how skilled an enterprise grasshopper-catching is. Indeed there is a very high failure rate. It is always with a degree of trepidation that the hands are slowly opened up. Will there be a grasshopper inside? Did it escape at the last moment?

The meadow we traversed at the head of the valley looked promising for Orthoptera. Indeed there were good numbers, but most were fairly standard grasshoppers found throughout the area. The children were busy chasing the grasshoppers through the long grass. A constant stream of common species was beginning to lower expectations. So, imagine my delight when my daughter, Eleanor revealed her latest orthopteran capture. It turned out to be a fine male Wart-biter *Decticus verrucivorus*. As most entomologists know, this is an extremely rare species in Britain, and the subject of a re-introduction programme.

The Wart-biter is a sturdy looking species. The individual that was caught was certainly impressive. He posed well for photographs, one of which is featured in the colour plates.

At the end of the week, we took the cable car at Auffach to some the highest points in the valley, including Schatzberg. Although it was raining and misty at the top of the mountain, we were still able to locate some high altitude specialist orthopterans. Having many youthful eyes scanning for insects can yield dividends. My son Tom located the Green Mountain Grasshopper *Miramella alpina*. The male is illustrated in the colour plates. To my mind he has a somewhat comical appearance, though handsome nevertheless. In keeping with this species' preference, it was located in damp areas near water. The



wet, overcast conditions did not seem to cause it too many problems. Indeed this species proved quite difficult to photograph as it was so active.

Overall, despite the relatively poor weather, the week proved to be good for Orthoptera, as well as a range of other insects. I would recommend the Wildschonau Valley as a relatively gentle introduction to the delights of Alpine grasshoppers.

Reference

Bellmann, H. (1988). *A Field Guide to the Grasshoppers and Crickets of Northern Europe*. Collins, London.

Photo

Corner



Female Club-legged Grasshopper *Gomphocerus sibiricus*

Photograph: Eleanor Wilkins



The Poplar Admirals near Verdun

by John Woolmer

Fig Tree Cottage, Roecliffe Road, Cropston LE7 7HQ.

In the summer of 1916, the German army prepared for another assault on the French fortress at Verdun. The invading army was camped near the small hamlet of Damvillers. With typical Prussian thoroughness, they had built a railway line starting near their camp in the forest travelling due south to the frontline on the edge of the old city. The line was used to ferry arms, ammunition, food supplies and men to the battle ground.



Count Freidrich von Luger was attached to a division which was based in the forest. For a blissful month, he was called upon to do no fighting and relatively little administrative work. He used his spare time to roam the forest and capture some of the forest butterflies. The magnificent Poplar Admiral was his main quarry – sometimes it rested on the path by the railway line and opened its sombre dark forewings to absorb the heat of the sun; more usually it was feeding from the salts on the stony ballast which supported the track – then it displayed its magnificent orange under wings which were edged with ice blue markings.

Von Luger had a blissful month, the last happy month of his life, during which he collected a number of specimens. Often he stood on a small bridge which spanned the line near its terminus and wielded his net as the Poplar Admiral, and the two species of Purple Emperor flew by. Doing this, he was able to shut out the incessant sounds of the war which was being fought about thirty kilometres to the south. The butterflies were in profusion that summer. Von Luger even caught some aberrations – a White Admiral which was almost black and a Purple



Emperor with no white markings at all. He boxed them with great care and sent them home; his father was very pleased.

In early August, the best of the butterfly season was over and Von Luger was hurled into action. The fighting at Verdun was particularly brutal and included hand to hand combat in some tunnels beneath the city. Von Luger would never talk about it. He survived, probably because he was sufficiently badly wounded to be sent home. By the end of the war, he had recovered in body but not in mind.

Outwardly, he was calm and gracious; inwardly, he was brooding and full of dark thoughts. Although he didn't recognise it, he was like the Poplar Admiral. His outward appearance was elegant and charming; but he seldom opened his dark inner soul. The Poplar Admiral looked beautiful when its wings were closed; but when it opened them the butterfly looked dark and almost menacing.

All of this had a disastrous effect on his young wife and his young son, Elrich, who was conceived just before the Count had been called to the woods at Damvillers. Elrich grew up regularly facing his father's dark moods. When his father was in this state, physical punishment inevitably followed.

Elrich hated his father and he, in turn, became a very cruel boy. He enjoyed torturing insects often experimenting with contests, which he read about in Pagnole's books, between a Praying Mantis and a host of ants. By the time he was eighteen; he was at last free from his father's discipline, Hitler was well in power. Elrich admired the Fuhrer's single-mindedness and he became a convinced and passionate Nazi. His fanaticism was recognised and admired; he quickly moved up the ranks.

When the war came, he was recognised as a talented and cruel young man. He was recruited to work for the Gestapo. Working mainly in occupied France; he repressed any signs of Resistance with exemplary ferocity. If a village was thought to harbour members of the Maquis; it was raised to the ground and all men aged between eighteen and sixty-five were shot. If a resistance worker was caught, Elrich devised exquisite torture to extract information prior to a painful execution. He was loathed by the French and feared by his colleagues. He rose to a high rank; too high to escape notice when the war came to an end; he was apprehended as a war criminal and hung by the allies.

In the midst of all this, Elrich had married and had a daughter, Winifred, born in 1944. Winifred grew up in post war Germany,



unaware of her father's terrible war record and her grandfather's miserable past. In 1968, she travelled to England to do a post graduate degree in Natural History. Like her grandfather, she was passionate about butterflies.

While in England, she met Henry who was also an entomologist. A whirlwind romance followed and she took Henry to meet her mother and grandfather who lived on the edge of the Black Forest. While he was staying with them, Henry had a strange dream. He kept on encountering a Poplar Admiral – a butterfly which he only knew from books. The Poplar Admiral kept sitting on disused railway track trying to open its wings. For some reason, it couldn't open them and as a result couldn't raise its body temperature to fly properly. A predatory Jay kept arriving to attack it; but somehow the butterfly evaded the clumsy bird. Henry woke up in a cold sweat. He was sure that the dream was significant.

Winnie discerned that he was in some discomfort and managed to extract the details of the dream from him. She immediately commented 'That is a very strange dream. It may be significant. My Grandfather has a collection of butterflies and pride of place is given to the Poplar Admiral. I think he caught them while staying in France before some terrible battle'.

Winnie was very fond of her grandfather and had learnt to manage his moods and dark depressions. He had always lived with her mother and had become a surrogate father. She knew nothing about her father except that he had died at the end of the war.

Winnie and Henry asked to see old man's butterfly collection. With some reluctance, he agreed. The very last drawer in the cabinet contained the Poplar Admirals. Each butterfly was perfectly set and labelled – Damvillers 1916. The butterfly was represented by a number of specimens which displayed both the upper and undersides of the wings.

Winnie then spoke to her grandfather, 'Grandfather, Henry had a strange dream last night. I want him to tell it to you.'

Henry related the dream speaking in slow precise German. Winnie added a few points speaking much faster. When Henry had finished the old man let out a great shriek and fell to the ground. After a few minutes, he came round and asked what had happened. He could remember nothing. Winnie repeated the dream to him; he turned very pale and said nothing.

Henry sensed a God-given moment. 'Freidrich what happened at Damvillers? It's obvious that my dream has affected you. I can see from



your cabinet that all of the *Limentis populi* were captured during the Great War at the forest of Damvillers. What happened there?’

Freidrich spoke very slowly and at great length. He talked about the carefree month of July 1916 and the butterflies; then he talked about the assault on Verdun. He said he had never talked about it since and had blocked it from his memory; he couldn't bear to think about it. He imagined that most of his fellow soldiers had done the same.

Eventually, and with great difficulty, he told them about the brutal hand to hand fighting and all the Frenchmen that he had killed. He told them how glad he was to be wounded and to escape from the hell. He told them how this had affected him ever since and that flashbacks caused his terrible black moods.

He admitted that he had brought up Winnie's father very cruelly. He knew that his upbringing was partly why the young man had been such a ruthless Nazi. He even told Winnie, for the first time, about her father's death. Then he put his head in his hands and wept. 'There is no hope for me' he kept repeating this in German over and over again.

That afternoon, Henry and Winnie went for a long walk in the Black Forest. Winnie was terribly upset by the revelations, especially those about her father. Henry sensed a crisis in their relationship. They walked largely in silence; the Black Forest had its usual paucity of insects and even the sight of the rare Woodland Brown didn't raise their spirits.

Suddenly, Henry broke the silence. 'I know what we must do – and we need to action the plan immediately. We will take Freidrich to Damvillers and then, perhaps, to Verdun. He needs to face his inner demons. If we go tomorrow, the Poplar Admirals should still be flying.'

Freidrich agreed to their plan. They had a tense nervy drive to Damvillers; but they ended the day in a nice French hotel with good food and local wine. The next morning, they made their way to the Forest. For a long time they could find no trace of the railway line. Then they met a forester and asked him. 'La route de la chemin de fer pour le guerre?' 'Oui, ici, je vous montre'. The man was helpful and led them to a small parking place beside the road; he led through some woodland along a narrow path which led onto a wide straight track which was unmistakably a disused railway line. Freidrich looked to the left and gasped. Two hundred metres along the track was the familiar bridge which he had last seen over fifty years ago.

The forester, realising that that was the place they wanted to find, guided to them another pathway which quickly led to some steps up



to the bridge. They climbed onto the dilapidated bridge and surveyed the view. To the south, the railway track ran dead straight – it had been built with inexorable Germanic precision. To the north, the track opened out and there was a large area which could have been a marshalling yard surrounded by tall trees. They surveyed the trees. There were many butterflies. First they saw the White Admirals, then the Lesser Purple Emperor mainly the yellow Clytie form; after that a Purple Emperor was seen sunning itself on a willow bush just below the bridge. But where were the Poplar Admirals?

They paced up and down on the bridge; then they surveyed the track using the powerful binoculars that Henry always used when looking for butterflies. The sun was shining, there was little wind and the day seemed perfect. Henry, who had never seen the Poplar Admiral, knew that even in good sites, it could be an elusive insect. Half an hour passed, Winnie suggested going down and walking the track. Her grandfather's health wasn't too good, but he could manage about an hour's walk, then they could have a picnic on the ground beneath the bridge.

A large black insect flew out of one of the treetops. It flew around them and descended rapidly onto the railway track just below them. '*Limenitis*' all three of them shouted in unison.

They made their way down to the track; it took about five minutes. When they got back to the foot of the bridge; their quarry was still there feeding off the path with closed wings. They watched him for a while; attempted a photograph. Their butterfly was disturbed flew up into the trees and five minutes later reappeared and started to feed at exactly the same spot.

This time, Henry used his net and scooped their insect into his net and then into a collecting box. He put the box in the shade under a tree. 'If we leave him for about twenty minutes, he should be quite docile and we can release him and have a good look at him'. They ate their picnic; then very cautiously Henry took the lid off the collecting box. Their butterfly walked onto Henry's finger mopping up the liquid



which he had placed there. Henry manoeuvred him onto an aspen leaf. *Limenitis populi* stayed very still displaying his perfect underside. Then he flicked his wings and opened them to show his jet black upper wings. He bathed in the afternoon sun; totally unconcerned by his three onlookers.

Freidrich uttered another great cry and staggered and then sat down abruptly on the ground.



'I must tell you everything. I am like that butterfly. Outwardly, I seem quite calm, but then something touches me and the inner blackness, like its forewings, comes to the surface.'

Then it all came out in a great torrent. The worst part had not been the hand to hand fighting but the use of poisoned gas. The Germans had had gasmasks; the French were unprepared. There was an enormous slaughter. Freidrich, himself, reckoned that he had knifed about twenty combatants.

When Freidrich had finished his confession, the Poplar Admiral closed and then flicked his wings. The magnificent insect flew off. He circled around the open area, briefly visited the tree tops and then descended to resume his interrupted feed on the railway track.

Freidrich indicated that he had seen enough. They returned to the hotel. They had a lovely evening. Freidrich had agreed that the next day they would visit the war museum in Verdun. He went up to his room saying that he felt truly at peace for the first time for fifty years. He thanked Henry for his sharing his dream and for taking him back to Damvillers. He said that his faith in humanity and in God had been somewhat restored.

He never came downstairs. Winnie found him, in his final sleep, dead to this world with a smile on his face. She had never, in all his lifetime, seen such a seraphic smile.





Altitudinal limits of grasshoppers in the Cotswolds and Malvern Hills in relation to livestock grazing of hilltops

by Tim Gardiner (11826)

2 Beech Road, Rivenhall, Witham, Essex, CM8 3PF.

There have been several recent articles in the Bulletin detailing observations of the altitude at which grasshoppers (Orthoptera: Acrididae) have been recorded in Britain (Gardiner & Gardiner 2008; Burton 2010; Haes 2010; Horsfield 2010). The main emphasis of these articles has been the altitudinal limits of the common green grasshopper *Omocestus viridulus*. While on holiday in the Cotswolds and Malvern Hills in late September 2010, I made some interesting observations on altitudinal limits of grasshoppers during the course of several hill walks that reminded me of research on a South African mesa (a flat topped hill or mountain with steep sides), which showed that the summit, due to its inaccessibility to grazing livestock, was a favourable grasshopper habitat compared to the lower more intensively grazed 'flatlands' (Gebeyehu & Samways 2006). The summit of the mesa was therefore considered a conservation 'island' with high abundance of grasshoppers due to the low grazing intensity.

On the 22nd September I walked up the Herefordshire Beacon (British Camp) in the Malvern Hills. I started from the car park at the bottom of the hill (grid reference: SO 762403) and made my way up the surfaced path through some dense tree cover. At about 239 m above sea level (asl) I heard numerous singing field grasshoppers *Chorthippus brunneus* along with several common green grasshoppers. Slightly farther up the hill at about 256 m asl, I heard my last singing common green grasshoppers amongst scrub and bracken *Pteridium aquilinum*. Beyond this point towards the top of the Herefordshire Beacon, the vegetation changed dramatically from scrub interspersed with bracken and tall grass, to very short (3-4 cm in height) grassland established by sheep grazing. No other grasshoppers were seen or heard on my walk to the top of the hill (summit 338 m asl), which was only interrupted by the noise of two fighter jets flying at a low level. From the top of the Herefordshire Beacon it struck me that the vegetation of the hill changed very abruptly towards the summit, it seemed that the areas grazed by sheep afforded very little cover for the common green grasshopper which was effectively limited to the lower



slopes. Here another problem presents itself; a large area of the lower slopes has been heavily encroached upon by dense woodland, also not a suitable grasshopper habitat. Therefore, the common green grasshopper may be 'sandwiched' in a narrow band of ungrazed grassland between the upper, sheep grazed slopes, and the lower altitude woodland (Fig. 1).



Fig. 1: View from near the summit of the Herefordshire Beacon showing the sheep grazed upper slopes and the wooded lower regions of the hill © Tim Gardiner

A similar situation occurs on the slopes of the Epping Forest ridge in south-west Essex and appears to have led to the extinction of the common green grasshopper from Lippitts Hill (grid reference: TQ 398977). For example, in the grazed pasture at the base of Lippitts Hill, it is intensive horse grazing which creates a very short sward (< 10 cm in height) in midsummer (Gardiner 2010). Heavy poaching from horse hooves creates extensive bare, unvegetated ground containing uncommon plants such as marsh cudweed *Gnaphalium uliginosum*; however, this habitat is not favourable for the common green grasshopper or Orthoptera generally (Gardiner & Haines 2008). Ironically, scrub encroachment from an absence of grassland management has probably eradicated this grasshopper from the



upper slopes (100 m asl) of Lippitts Hill (Gardiner 2010). Therefore, it is crucial to get the balance right between too much grazing and too little, otherwise the common green grasshopper may disappear from hillside habitats. In Essex there has been an extremely worrying 50% decline for the common green grasshopper since 1997 (Gardiner 2010), caused primarily by inappropriate site management (e.g. lack of management or intensive mowing/grazing regimes). Without suitable grazing regimes on hillsides we could easily lose more populations. In Epping Forest, low intensity English Longhorn cattle grazing (1-2 cows per 10 ha) on wet heathland dominated by purple moor-grass *Molinia caerulea* seems to be beneficial (Gardiner 2010).

Flushed with success at finding the common green grasshopper on the Herefordshire Beacon, I moved on to walk up the taller (summit 425 m asl) Worcestershire Beacon as the weather was still warm and relatively sunny. Starting at the West of England Quarry car park (grid reference: SO 766449), I heard dark bush-cricket *Pholidoptera griseoptera* singing in scrub at 356 m asl, before passing through an area of shady woodland, in which there was little grasshopper interest. Coming out onto the upper slopes, the path zig zagged towards the summit and passed through ungrazed tall grassland and bracken. Here there were numerous singing field grasshoppers at 398 m asl, and common green grasshoppers up to a limit of 403 m asl. It is quite possible they were both present all the way to the summit, but I could find none higher than the altitudes mentioned.

The vegetation of the Worcestershire Beacon was similar to the Herefordshire Beacon in that the lower slopes were heavily wooded in places, with little value for grasshoppers of open habitats; however, the upper slopes were ungrazed and had plenty of tall grassland suitable for common green grasshopper, which was duly noted almost all the way up to the summit. This shows that in the absence of sheep grazing, this grasshopper can persist at higher altitudes than on the Herefordshire Beacon. Could sheep grazing of the upper slopes limit the altitude at which grasshoppers are found in the Malvern Hills due to the creation of uniformly short swards (3-4 cm in height) with little shelter from inclement weather? It is important to graze the slopes to benefit the flora and butterflies in particular, but it may be crucial for grasshoppers to ensure that sheep do not overgraze hilltops.

On the next day (23rd September) I moved on to the Cotswolds and visited Broadway Country Park (grid reference: SP 112359).



Interestingly, Broadway Tower (312 m asl) is situated within a deer enclosure, with a high fence around its perimeter. This is so red deer *Cervus elaphus* can graze the vegetation in the enclosure to keep grass and scrub under control. The result is short grassland (5-10 cm in height) with the occasional patch of tall ungrazed grass. I could find only meadow grasshoppers *Chorthippus parallelus* in the deer enclosure (at 311 m asl), whereas, dark (306 m asl) and Roesel's bush-crickets *Metrioptera roeselii* (302 m asl) were heard singing outside of the enclosure in taller ungrazed grassland and scrub nearby. Grazing, this time by red deer, may effectively limit the occurrence of Orthoptera on hilltops.

As the weather was still fine and dry, I decided to walk up Cleeve Hill near Cheltenham, an outstanding example of unimproved limestone grassland with a summit 317 m asl. Making my way from the car park (grid reference: SO 985270) up the hill I immediately heard dark bush-crickets singing in scrub (230 m asl), before coming across several stripe-winged grasshoppers *Stenobothrus lineatus* (244 m asl), field grasshoppers (255 m asl), and meadow grasshoppers (259 m asl) in long grass on the escarpment. Most grasshoppers were found in sheltered hollows or 'amphitheatres' where a warmer, less windy microclimate may be present. However, on my walk to the summit no grasshoppers were found above 259 m asl, which was in itself a curious limit to their distribution on Cleeve Hill. The hill is grazed by cattle and sheep, although this grazing did not seem to produce the short swards on the upper slopes (above 259 m asl) which were present on the Herefordshire Beacon. From searching the Cleeve Common website (www.cleevecommon.org.uk) it appears that if left to roam free the cattle and sheep migrate to the top of the slopes to graze. However, this problem is overcome as livestock are dispersed all over the Common to ensure that the summit and upper slopes are not overgrazed. This may allow Orthoptera to persist at higher altitudes than if the upper slopes were overgrazed. The common green grasshopper has also been recorded on Cleeve Hill but I could not find it, perhaps I was a little too late in the season at this site.

In conclusion, it seems that grazing may be a crucial influence on the altitude at which grasshoppers are observed on hills. Grazing of hilltops by sheep in particular may lead to short swards (3-4 cm in height) which are not favourable for more localised orthopterans such as the common green grasshopper. It is also important to remember that grazing has an essential role to play in the continued conservation



of escarpments and hills, as the only practical way of controlling the spread of bracken, coarse grasses, and scrub which would engulf the unimproved grasslands in the absence of management and lead to the loss of grasshopper populations. Stock dispersal may be crucial in ensuring that hilltops do not become overgrazed.

References

- Burton J.F. (2010) Altitudinal limits of the Common Green Grasshopper *Omocestus viridulus* (L.) (Orthoptera: Acrididae) in Britain. *Bulletin of the Amateur Entomologists' Society* 69: 137-138.
- Gardiner T. (2010) Precipitation and habitat degradation influence the occurrence of the common green grasshopper *Omocestus viridulus* in southeastern England. *Journal of Orthoptera Research* 19: 315-326.
- Gardiner T. & Gardiner M. (2008) Altitudinal limits of insects on Snowdon. *Bulletin of the Amateur Entomologists' Society* 67: 204-206.
- Gardiner T. & Haines K. (2008) Intensive grazing by horses detrimentally affects orthopteran assemblages in floodplain grassland along the Mardyke River Valley, Essex, England. *Conservation Evidence* 5: 38-44.
- Gebeyehu S. & Samways M. (2006) Conservation refugium value of a large mesa for grasshoppers in South Africa. *Biodiversity & Conservation* 15: 717-734.
- Haes E.C.M. (2010) Common Green Grasshopper *Omocestus viridulus* update. *Bulletin of the Amateur Entomologists' Society* 69: 240.
- Horsfield D. (2010) Altitudinal limits of grasshoppers in the Lake District. *Bulletin of the Amateur Entomologists' Society* 69: 108-110.



Dipterists Handbook (Second Edition) edited by Peter Chandler (with contributions by 42 other authors)

This Handbook provides a work of reference for everyone interested in the study of flies, both beginners and experienced dipterists.

As in the first edition great emphasis has been placed on the habitats and biological associations of flies. Among the authors are specialists in each field of study so it has again been possible to bring together a summary of the latest knowledge of all aspects of the biology of Diptera at the species level.

There are additional subjects not covered in the first edition including Forensic entomology and an explanation of the classification of Diptera and a bibliography of key works for the identification of both adults and larvae. Some specific habitat associations are covered in greater detail to reflect increased ecological knowledge of flies and the greater significance now being placed on some habitats in the conservation of Diptera. 525 pages with 32 colour plates and 45 text figures. £ 52.00
Members price £ 44.00

British Butterflies throughout the year by Peter May

This new book from the AES describes the adults of different species of British butterflies, according to the time of year they appear on the wing. Nearly all the 60 British species are illustrated. Focussing on encouraging an interest in entomology among the young, and the young at heart, there is a helpful calendar of flight times and a useful checklist to help you keep track of your observations. £ 5.00
Members price £ 3.80

Preparing and maintaining a collection of Butterflies and Moths

by P. May and M. White. A practical manual detailing the various methods used to prepare specimens for a collection, from killing methods, setting the specimens and repairing damaged ones, to storage and preservation, including pest prevention and cure. 21 pages, 4 figures and 5 plates. (2006) £4.85
Members price £3.65

The Hymenopterist's Handbook by Dr. C. Betts *et al.*

2nd edition dealing with the history of their families, classification and structures; natural history; studying, collecting, breeding, attracting and preserving Hymenoptera. Appendices include keys to the families. 214 pages with numerous tables, keys and figures (1986) £ 11.45
Members price £ 8.60

Revised Flight Tables for the Hymenoptera

Revised flight tables for the Hymenoptera giving, wherever possible, times, location, flower visits and some indication of distribution and abundance. 24 pages (1988) £ 3.10
Members price £ 2.35

A Coleopterist's Handbook

Edited by J.Cooter & M.V.L.Barclay The *Coleopterist's Handbook*, is now available as a fully revised and expanded fourth edition. Nomenclature has been brought inline with

current use, collecting/curatorial methods reflect best practice and plant/beetle and beetle/plant lists are included together. Recent additions to the British fauna, modern and traditional techniques are included. All advice and comment given in the book is based upon collective years of practical experience of both curatorial methods and field craft; beetle family chapters have each been written by an internationally recognised authority. 496 pages including 32 colour plates. £ 54.00
Members price £ 39.00

Host plants of British Beetles: A List of Recorded Associations

A list of a wide range of plants, in alphabetical order, together with the beetle species that have been recorded as being associated with them. 24 pages (1992) £ 3.10
Members price £ 2.35

A Silkmoth Rearer's Handbook by B.O.C. Gardiner

SPECIAL OFFER PRICE £ 7.70
No further discounted price available

Rearing and Studying Stick and Leaf-Insects by P. D. Brock

Specifically intended for beginners, although it is also suitable for experienced Phasmid enthusiasts, it is one of the few guides to rearing that features the majority of the culture stocks available. 22 species in detail. The informative text is complimented by 8 colour plates, 14 black and white plates and 29 figures. (New edition, 2003) £ 11.20
Members price £ 8.20

The Study of Stoneflies, Mayflies and Caddisflies by T.T. Macan

A comprehensive guide to collecting and studying the biology and ecology of these aquatic insects. 44 pages, 10 figures and bibliography (1982) £ 4.20
Members price £ 3.15

Breeding the British Butterflies by P.W. Cribb

A practical handbook covering all aspects of butterfly breeding, including general techniques, equipment and hints on how to breed each of the British species. 60 pages, 6 figures, 5 plates, Revised (2001) £ 5.20
Members price £ 3.85

Practical Hints for the Field Lepidopterist by J.W. Tutt

Written at the turn of the century, this book has been reprinted because of its scarcity and value to students of Lepidoptera. It gives a complete month by month guide to which species and stages of macros and micros to look for and how to find them. Also contains a biological account of the early stages and how to keep, rear, photograph and describe them. 422 pages. Hardback. (Reprinted 1994). £ 24.00
Members price £ 18.30

An index to the modern names for use with J.W. Tutt's Practical Hints for the Field Lepidopterist by B.O.C. Gardiner

A valuable cross-reference guide between the scientific and English names used in the early 1900s and the present time. £ 4.70
Members price £3.50

A Guide to Moth traps and their use by R. Fry and P. Waring

The first sections deal with the measurement and properties of light leading into the types of lamp available and the electrical circuits needed to operate them. The next sections give details of the construction of the most popular traps used in the UK. The last half deals with the practical use of traps in the field including where and when to trap, limitations of traps and their relative performance. 68 pages, 21 figures, 15 plates (1996)

£ 6.85

Members price £ 5.05

The Amazing World of Stick and Leaf Insects by Paul D. Brock

A superb, comprehensive guide, for all those intrigued by these groups of insects. Topics covered include structure, fascinating facts, life history and development, defence behaviour, enemies, collecting, breeding (including trouble shooting), preserving, taxonomic studies, important collections in Museums etc. around the world and elaborate stories, beliefs and poems. Also outlines the major known species around the world on a regional basis. A section on Fossils is included. Includes a comprehensive glossary of the technical terms used in the description and classification of stick and leaf-insects. Hardback A5, 184 pages, 46 figures, 26 black and white plates and 40 pages of colour plates (containing 83 photographs and 4 drawings/paintings of insects and their habitats). (1999)

£ 18.90

Members price £ 14.10

Rearing Parasitic Hymenoptera by M. Shaw

This booklet provides information on the parasitic Hymenoptera to enable successful studies to be made of this little understood group of the British insect fauna. Details are given on the general biology of parasitic wasps, rearing principles, efficient rearing practices and detailed methods of dealing with adult wasps. 52 pages, 4 colour plates (New edition – 2001)

£ 5.70

Members price £ 4.20

Larval Foodplants of the British Butterflies by Peter May

A comprehensive compilation of the known larval foodplants of our native and immigrant butterflies. Also including "How to Encourage Butterflies to Live in Your Garden" by the late Peter Cribb 62 pages. (2003)

£ 7.40

Members price £ 5.45

The larger water beetles of the British Isles by Peter Sutton

For those who love the spectacular larger water beetles of the British Isles, this is the publication that you have been waiting for! It is the only modern publication with colour illustrations of all of our aquatic coleopteran megafauna and it provides the most up-to-date distribution maps revealing their current distributions. Jam-packed with fascinating details of their life-histories, this book covers 11 species including the 6 native 'Great Diving Beetles' and the 'Silver Water Beetles'. It is also copiously illustrated with text figures and has much additional information including details of observed climate-induced range changes and the conservation measures required to ensure their continued survival.

£ 11.90

Members price £ 8.90

Glossary for the Young Lepidopterist

£ 1.05

6 pages, 2 figures. (1951)

Members price £ 0.90

A Label List of European Butterflies

£ 2.35

20 pages. (Revised 1981)

Members price £ 1.85

Some British Moths Reviewed

Aid to the identification of some of the more difficult species. Reprinted from the *Amateur Entomologist* Vol. 5 (1941) and a *Guide to the Critical Species of Lepidoptera*, reprinted from *Entomologists' Gazette* 1969-72. 64 pages, 6 black and white plates, numerous figures (1985)

£ 4.45

Members price £ 3.35

Butterflies of Cyprus 1998 (Records of a years sightings)
by Eddie John

Observations of the 44 species of butterfly found on the island in 1998 including notes on each species and distribution maps. 46 pages (2000)

£ 4.30

Members price £ 3.25

Collecting Het.Bugs (Hemiptera: Heteroptera)

£ 1.20

12 pages (including 2 plates). (1946)

Members price £ 1.00

Collecting Clearwings

12 pages (including 2 plates), 4 figures. (1946)

£ 1.10

Members price £ 1.00

Collecting Lacewings

9 pages, 8 figures, 5 plates. (2nd edition 1976)

£ 2.25

Members price £ 1.75

An Amateur's Guide to the Study of the Genitalia of Lepidoptera

16 pages, 15 figures. (1973)

£ 3.10

Members price £ 2.35

Rearing the Hymenoptera Parasitica

£ 2.55

16 pages, 1 plate, 10 figures. (1974)

Members price £ 2.00

Rearing Crickets in the Classroom

12 pages, 2 plates. (1986) (Reprinted 1993)

£ 2.10

Members price £ 1.65

Guidelines for Entomological Site Surveys

Published on behalf of the JCCBI. 7 pages (2000) (Reprinted 2003)

£ 3.10

Members price £ 2.35

The Journal of the Entomological Exchange and Correspondence Club 1935-1936

An AES Jubilee Publication. Fascinating reprint of the very first volume of the AES journal. 100 pages.

£ 4.20

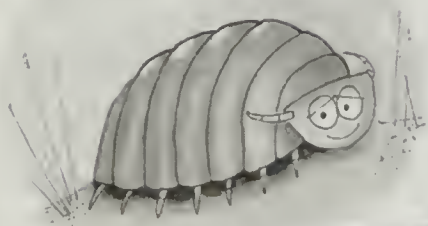
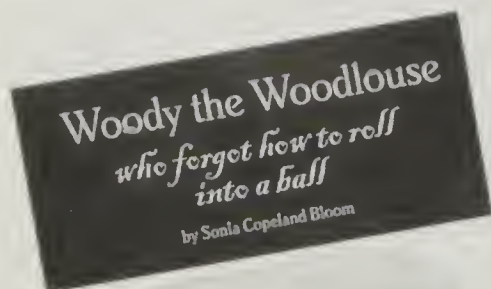
Members price £ 3.35

All the above publications sent post free to U.K. addresses. Outside U.K. please add 10% to order value for postage by surface mail. For postage by air-mail outside Europe please add 30% to order value. Please allow 28 days delivery.

Please make all cheques/postal orders payable to 'AES Publications' and send to:

AES Publications, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Telephone 01277 224610 • Fax: 01277 262815 • E-mail: aespublications@btconnect.com



Just Published!

The second book in the series *Truths and Tales about Garden Minibeasts*

by
Sonia Copeland Bloom

*Includes exciting
Bug Club Competition!*

Members' price £3.50 post free

Non-members' price £4.50

If your child enjoyed the first book in this series — *Basil the Beetle's Scary Adventure* — they will love to read about the escapades of Woody, the little woodlouse who forgot how to roll into a ball, and his friend Spinny the Spider!

Both books are supplied signed by the author in this first edition.

They are designed as 'faction' books, and consist of an engaging story about a minibeast supplemented by factual sections:

Information about insects, especially beetles or woodlice

How to look after them as pets

A glossary of terms that also serves as an introduction to entomology

Suggestions as to how to take your interest in minibeasts further

HOW TO ORDER

To order one or both of these books, just send a cheque for the correct amount to: Tales and Truths, PO Box 8774, London SW7 5ZG
Or visit the AES online shop <http://shop.amentsoc.org>





AES Membership Rates 2011

Membership of the Society runs from 1st January to 31st December each year. New members will receive all publications published during the year of enrolment subject to availability, except for those joining on or after 1st October.

Any member joining on or after 1st October will be deemed to have joined for the following year unless he or she specifically requests membership for the current year. If such a request is made, the publications already published that year will be sent with the enrolment confirmation letter and the remaining ones will be sent when they are published. A further membership subscription will be necessary for the following year.

If you have any queries about membership please contact us via the website, www.amentsoc.org or PO Box 8774, London SW7 5ZG

Individual Adult Membership

Membership sub-category	UK	Overseas
<i>Bulletin only</i>	£20.00	£25.00
<i>Entomologist's Record only</i>	£25.00	£30.00
<i>Bug Club Magazine only</i>	£20.00	£25.00

Individual Bug Club / Junior Membership

Membership sub-category	UK	Overseas
Junior under-18 (<i>Bug Club Magazine only</i>)	£12.00	£17.00
Junior aged 13-17 (<i>Bulletin only</i>)	£12.00	£17.00

Family or Combined Membership

Membership sub-category	UK	Overseas
<i>Bulletin & Entomologist's Record</i>	£40.00	£45.00
<i>Bulletin & Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record & Bug Club Magazine</i>	£35.00	£40.00
<i>Bulletin, Entomologist's Record & Bug Club Magazine</i>	£48.00	£53.00

Associate / Institutional Membership

Membership sub-category	UK	Overseas
<i>Bulletin only</i>	£20.00	£25.00
<i>Entomologist's Record only</i>	£50.00	£55.00
<i>Bug Club Magazine only</i>	£20.00	£25.00
<i>Bulletin & Entomologist's Record</i>	£65.00	£70.00
<i>Bulletin & Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record & Bug Club Magazine</i>	£65.00	£70.00
<i>Bulletin, Entomologist's Record & Bug Club Magazine</i>	£75.00	£80.00

The Amateur Entomologists' Society

PO Box 8774, London SW7 5ZG

www.amentsoc.org

The
Bulletin
of the Amateur Entomologists' Society

Volume 70 • Number 495

April 2011

CONTENTS

Editorial	41
Society Matters	42
Sokoloff, P. Another "Lady" entomologist from the past	45
Steele, T. In search of the Piedmont Anomalous Blue, <i>Polyommatus humedasa</i> , and when disaster struck	48
Jansson, N. Attraction of stag beetles with artificial sap in Sweden	51
Fremlin, M. and Hendriks, P. Sugaring for stag beetles – different feeding strategies of <i>Lucanus cervus</i> and <i>Dorcus parallelipipedus</i>	57
Wilkins, P. Grasshoppers in the Tyrol, 2010	68
Woolmer, J. The Poplar Admirals near Verdun	71
Gardiner, T. Altitudinal limits of grasshoppers in the Cotswolds and Malvern Hills in relation to livestock grazing of hilltops	77

ES 36A

The Bulletin



of the Amateur Entomologists' Society

Volume 70 • Number 496

June 2011

NATURAL
HISTORY MUSEUM
14 JUL 2011
PRESENTED
ENTOM LIBRARY



ISSN 0266-836X

Editors: Dr P. Wilkins & Paul Sokoloff



000174480



Founded in 1935

The AES • P.O. Box 8774 • London • SW7 5ZG

www.amentsoc.org

Email: contact@amentsoc.org • bug-club@amentsoc.org

Officers of the Society

President: Peter Hodge

Secretary: Dafydd Lewis (secretary@amentsoc.org)

Treasurer: Peter May (treasurer@amentsoc.org)

Registrar: Dafydd Lewis (registrar@amentsoc.org)

Bulletin Editor: Phil Wilkins/Paul Sokoloff (bulletin-submission@amentsoc.org)

General Editor: Jacqueline Ruffle

Advertising Secretary: Peter Hodge (advertising@amentsoc.org)

Exhibition Secretary: Wayne Jarvis (exhibition@amentsoc.org)

Youth Secretary: Kieren Pitts

Conservation Secretary: David Lonsdale

Webmaster: Kieren Pitts

ICN Editor: David Lonsdale (icn@amentsoc.org)

Wants & Exchange: Peter May (newsletter-editor@amentsoc.org)

THE AES WORKS TO PROMOTE AND DISSEMINATE ENTOMOLOGICAL KNOWLEDGE AND TO
ENCOURAGE AN INTEREST IN ENTOMOLOGY AMONG THE YOUNGER GENERATION.

BULLETIN ADVERTISING RATES:

Advertising in the AES *Bulletin* is a cost effective way of reaching all AES members and many others who benefit from institutional subscriptions.

Full page £75 for each advert or £375 for six adverts in the same year.

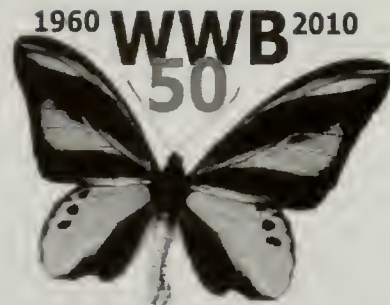
Half page £50 for each advert or £250 for six adverts in the same year.

Quarter page £30 for each advert or £150 for six adverts in the same year.

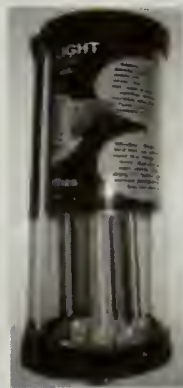
NOTICE

It is to be distinctly understood that all views, opinions, or theories, expressed in the pages of this Journal are solely those of the author(s) concerned. All announcements of meetings, financial grants offered or sought, requests for help or information, are accepted as bona fide. Neither the Editor, the Officers and Council of the Society, nor its Trustees, can be held responsible for any loss, embarrassment or injury that might be sustained by reliance thereon.

Worldwide Butterflies



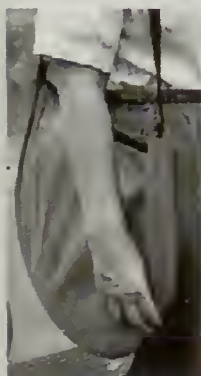
Watch the ww b website
www.wwb.co.uk
for new developments



Light now
available
alone or
with the
**Moonlander
Moth Trap**

Moonlander Moth trap

Folds totally flat and is
contained in a
convenient slim
shoulder bag.
Very lightweight.



**The Moonlander turns the
principle of moth trapping
upside down!** Moths enter
from the bottom and cannot
escape through the top.
**Works as sheet and trap
combined.**

Better than traditional egg
boxes, moths prefer the new
**reticulated foam moth
shelters** and cone.



See **www.wwb.co.uk** for
prices and more.



Both trap and light are total innovations by Robert Goodden.
They are tried and tested in Europe and the tropics.
In good conditions the results are spectacular.

Worldwide Butterflies website offers **Livestock and Equipment for
breeding and study. Specimens for specialist collectors will be added as
available.** The system enables you to see exactly what is currently available as
the season changes. From time to time there are special **Sale Offers** of
equipment, books, livestock and specimens - an ever changing situation.

www.wwb.co.uk Add it to your **Favorites** - check it regularly.

ATROPOS ANTIQUES*

PURVEYORS OF FINE COLLECTOR'S CABINETS

*Many of you will have met us at the AES London Fair
where we regularly show entomological cabinets for sale*



- We are specialist dealers in fine collector's cabinets.
- We can offer a choice of at least 30 cabinets, varying in purpose, construction, quality and price.
- We can supply both restored and un-restored cabinets and will undertake to restore and paper cabinets for clients.
- We are always interested in the purchase or exchange of cabinets, with or without a collection.
- Callers to our showrooms are always welcome by appointment.
- We offer a specialist collection and delivery service throughout the UK and have full expertise in the safe transportation of cabinets and collections.

We now have a dedicated cabinet showroom in Hartland, North Devon, and are happy to receive visitors to view the stock of over sixty cabinets including all the famous makers names. Please telephone or e-mail if you wish to call. Hartland is famous for it's coastline and dramatic scenery and was one of the last known haunts of the Large Blue.

We are very keen to buy whole insect collections and collecting paraphernalia ancient or modern. Please contact George Morgan by telephone or e-mail.

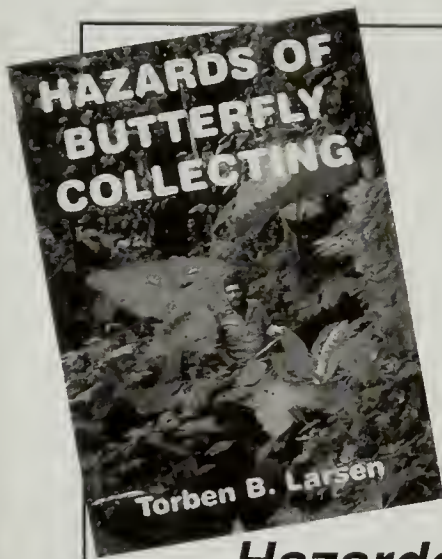
George Morgan

97, West Street, Hartland, N. Devon EX39 6BQ

T: 01237-441205/984 M: 07973 302190

E-mail: george@atropos.wanadoo.co.uk

* We are an independent dealership of 30 years standing and have no association with any similarly named business.



SPECIAL OFFER

£7.50 each

(inc. UK p&p)

£9.50 each (overseas)



Hazards of Butterfly Collecting

by Torben B. Larsen

Rearing Stick and Leaf Insects

by Ronald N. Baxter

ORDER YOUR COPY NOW FROM

Cravitz Printing Company Limited, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Tel: (01277) 224610 • Fax: (01277) 262815 • E-mail: CravitzPrinting@btconnect.com

Bulletin Cover



This month's cover picture shows the larva of the Elephant Hawkmoth, *Deilephila elpenor*, one of our most attractive moths. The rather strange name for this moth comes from the thinner front segments of the larva which stretch and wave around, rather like an elephant's trunk, especially when it is searching for food. The English name "Elephant Moth" first appeared in 1720 in a book by Eleazar Albin, although the Dutch entomologist Jan Goedart used the name in his *Metamorphosis*, which was published in 1662. The moth was also called The Ladies Bedstraw Moth by Benjamin Wilkes in 1773. When alarmed, the larva retracts the thinner segments, and inflates the fifth and sixth segments which bear the eye-spots, presumably to alarm any predator.

Although most usually associated with rosebay willowherb in the wild, it can also be found on other willowherbs and bedstraw. The larva is also partial to cultivated fuchsia and many a gardener has been dismayed by the presence of a fat caterpillar rather than lush leaves on their prize fuchsia specimen. Interestingly, the larva is reported to be a good swimmer and will thrash vigorously if it falls into water, and will haul itself out when it finds suitable vegetation.

This larva was photographed by Andrew Smith.



ARE YOU MISSING OUT? THE ENTOMOLOGIST'S RECORD and Journal of Variation

Publishes notes, observations, articles and reviews, mainly on the Lepidoptera and Coleoptera of the British Isles and Europe.

Founded in 1890 by J. W. Tutt, and still going strong, we publish six issues a year – alternating with the AES *Bulletin*. This means there is now a first class entomological journal available every month of the year!

Our subscription price is £25 per year. If you would like to see a specimen copy, please send your name and address, and a couple of second class stamps to cover postage to:

The Editor, 14 West Road, Bishops Stortford, Hertfordshire CM23 2QP.

Write now! You never know what you could be missing.

The Entomologist's Record is a publication of the Amateur Entomologists' Society.
To ensure high standards of production we use Cravitz Printing Company.



Ian Johnson Natural History Books (Pemberley Books)

Specialist in *Entomology* and related subjects
Also *Zoology*, *Ornithology*, *Botany* etc.

- CATALOGUES – Second-hand, Antiquarian and New books – free catalogues available on request.
- SPECIALIST BOOKSHOP at Richings Park, Iver, just to the West of London – easy to reach by car or train. Visitors are welcome to visit and view our stock, but please telephone first to confirm opening times.
 - * *By car*: only 10 minutes drive from the M25 via the M4 (Junction 5), or M40 (Junction 1). 15 minutes from Heathrow Airport.
 - * *By train*: 20 minutes from London Paddington to Iver Station on the Paddington-Slough Thames Trains service (2 trains every hour). We are 1 minute's walk from Iver Station.
- WEBSITE – view our stock on our website: www.pemberleybooks.com.
- BOOKS BOUGHT – We are always interested in purchasing books in our specialist field, particularly antiquarian, academic and scholarly works on insects and other invertebrates.

18 BATHURST WALK, RICHINGS PARK, IVER, BUCKS SL0 9AZ
Tel: 01753 631114 / Fax: 01753 631115 • e-mail: ian.johnson@pemberleybooks.com

The Bulletin

of the Amateur Entomologists' Society

Volume 70 • Number 496

June 2011

Editorial

The April *Editorial* mentioned the harsh winter and warm spring and the continuing warmth, particularly in the south of England, has played havoc with the normal emergence times of our insects with many being on the wing much earlier than usual. There is even an extraordinary report of the Six-spot Burnet being seen on the wing in late April. As I write this at the end of May, a lack of rainfall is beginning to be a problem, at least in southern and eastern regions. Herbaceous plants in particular are showing signs of stress. Plants may wilt and in some cases the nutritional value of leaves falls, both producing problems for the early stages of insects that may feed on these plants.

One of the interesting consequences of these weather conditions is the occasional appearance of the “drought dwarf” where an insect survives the unfavourable conditions, but does not receive enough food to grow to its full size. This condition seems to be more prevalent in geometrid moths, and as an example I have some wild-caught examples of the Garden Carpet from notorious drought years whose wingspan is just over 1 cm. The Editor is well aware that penning a few words on the effect of drought is likely to result in your June Bulletin being delivered during a period of torrential rain.

In the February *Bulletin* we reported on the public outcry over government plans to sell off much of our publicly owned forests. In the face of such opposition, the government promised to stop all sales, and set up a public consultation. So are we all out of the woods yet? (sorry!). Despite assurances, the *existing* sales programme has continued without a pause, and without much publicity. Organisations such as the Woodland Trust are continuing to oppose these sales. And the public consultation? It was halted on 17th February! Perhaps the shortest consultation in history, where nobody at all was consulted. A month later, the Secretary of State for the Environment set up an Independent Panel on Forestry to advise government of the future direction of forestry and woodland policy in England, and on the role of the Forestry Commission in implementing policy. The panel is being chaired by the Bishop of Liverpool, and the panel's findings will be presented in April 2012.



The Panel has already visited the Forest of Dean, and woodland in Northumberland and Kent – presumably so that they all know what woodland actually looks like. They are consulting a wide range of interested parties, and members of the public can also have their say though an on-line consultation. If you are interested in sharing your views, The Woodland Trust has an informative website, and enables you to set out your views in a questionnaire.

www.woodlandtrust.org.uk/en/campaigning/our-campaigns/panel/Pages/panelaction.aspx

Or you can visit the DEFRA site : www.defra.gov.uk/rural/forestry/panel

Help wanted

As you know, the AES is run by volunteers and from time to time we need additional people with an interest in entomology, and who support the aims of the society, to help us keep going. At the moment we are looking for willing volunteers for the following roles:

Council Members to help with the day to day running of the society. This is not a very onerous task – the Council meets about 4 times a year on a Friday evening in London to talk through and decide on the various matters involved in running the society and its various publications. Council Members can also help out with our Annual Exhibition and the Members' Days. The Council is informal and friendly and welcomes members of any age and any gender.

A **Treasurer** to oversee the finances of the Society, prepare the annual accounts for audit and advise the Council on all financial matters. The Treasurer is an officer of Council and attends Council meetings. We can supply more details of this role, which is more suited to someone with experience in financial affairs.

An **Associate Editor** for the *Bulletin*. In outline this will involve contact with authors, editing and selecting articles for the *Bulletin* and liaison with our printers during the production process. We publish six times a year, and the Associate Editor will take responsibility for three of the issues. Interest and experience in editing is useful, but not essential as there is plenty of help available. The main requirement is a “feel” for what makes a good article, and a reasonable degree of literacy is helpful!

If you are interested in any of these roles, please contact the secretary on secretary@amentsoc.org

Paul Sokoloff



SOCIETY MATTERS

AES NEWSLETTER

The *AES Wants & Exchange List*, which was first published in that form as long ago as 1946, has now been discontinued. It has been replaced by the new AES Newsletter.

The AES Newsletter is sent to current AES and Bug Club members on a monthly basis, **via email**.

For data protection reasons **members need to sign up to request it**
IF YOU DO NOT REQUEST IT, IT WILL NOT ARRIVE!

Signing up is a simple process: you just need to visit the following website:

<http://www.amentsoc.org/newsletter/signup>

and follow the instructions. (You can also unsubscribe from the newsletter at any time).

If you do not have email please write to AES Newsletter, PO Box 8774, London SW7 5ZG and provide your name, post code and membership number so that we can send you a copy in the post each month.

A hard copy of the AES Newsletter accompanies this mailing, in order to allow everyone a brief period of overlap, and to ensure that everyone has time to sign up for it.

Please note: it is intended that Society announcements will in future transfer to the AES Newsletter, with only selected key announcements duplicated in the AES Bulletin, Entomologist's Record and Bug Club Magazine, as appropriate.

AES WILTSHIRE

AES Wiltshire is an entomological group based in Swindon, affiliated from the outset with the Amateur Entomologists' Society.

AES Wiltshire mirrors the aims of the AES more widely - to provide a gateway to the study of insects for everyone, whatever their level of expertise or knowledge. It is a local group promoting the work that the AES does through local events, surveys, meetings and socialising. The group provides an opportunity to meet like-minded people with an interest in all things that 'creep 'n crawl'.

Contact details are on the following web page (or write in to the Society):

<http://www.amentsoc.org/membership/local-groups/wiltshire/>



AFFILIATION WITH THE SELBORNE SOCIETY

The AES and the Selborne Society have entered into a mutually beneficial affiliation, a key feature of which is that members of the Bug Club are able to attend the Selborne Society's monthly junior visits to Perivale Wood Nature Reserve. This affiliation thus offers a local focus for our members who live within reach of London.

The Selborne Society was founded in 1885 to commemorate the 18th century naturalist Gilbert White, of Selborne in Hampshire. Originally a national organisation, it is today represented by its remaining Brent Valley branch, which observes and records wildlife in west London. The Society owns and manages Perivale Wood Local Nature Reserve as the Gilbert White Memorial. In recent years AES members have attended National Moth Night events at Perivale Wood, run by AES and Selborne Society member David Howdon.

BUG CLUB MAGAZINE

We are currently short of copy for the Magazine. However, we have calculated that if every member of the Society writes just **one** article for it we will have enough material to last the current editor's lifetime!

If you have a favourite insect whose praises you would like to sing, or perhaps an anecdote of an entomological nature that would interest a Bug Clubber (ideally with a photograph) please email it to bug-club@amentsoc.org right away and leave your legacy to the next generation of entomologists.

AES EVENTS

Saturday 10th September

Annual AES & Bug Club Open Day at the Oxford University Museum of Natural History

Parks Road, Oxford, OX1 3PW.

This will follow the same informal pattern as last year, with live insect handling, displays, binocular microscopes, a bug hunt in the University Parks and a tour of the Hope Entomological Collections. Museum curation staff will be on hand to advise on any entomological questions you may have. There is no need to book but further details are available from secretary@amentsoc.org.



OTHER EVENTS

Saturday 13th August – Field Trip and Bug Hunt at Berrycroft Farm, Wiltshire

This will be hosted by Sally-ann Spence and will involve exploring a variety of interesting invertebrate habitats. Starting from 11.00 am. Experienced and novice entomologists all welcome!

Berrycroft Farm, Ashbury, Swindon, Wiltshire, SN6 8LX.

There is no need to book but further details are available from secretary@amentsoc.org.



AES ANNUAL REPORT FOR THE YEAR ENDED 31st DECEMBER 2010

The year under review marked our 75th anniversary as a society. We continued to successfully fulfil our aims to encourage the study of insects among amateurs and the young, and to enable the voice of amateur entomologists to be heard in insect conservation matters.

MEMBERSHIP

The total membership of the Society at 31st December 2010 was 1462, an increase of 24 over the previous year. This increase can be ascribed entirely to our junior section (The Bug Club).

PUBLICATIONS

Subscriptions to the *AES Bulletin* and the *Entomologist's Record* were maintained in 2010, with many members subscribing to both journals (indeed, more members now choose to subscribe to both the *Bulletin* and the *Record* than to the *Record* alone). *Invertebrate Conservation News* was also published regularly (see Conservation section, below) and the 28 page, full colour, bimonthly *Bug Club Magazine* increased in popularity, both with young subscribers and with the many adults who contributed articles and puzzles. We are very grateful to all contributors to the magazine for helping to inspire the next generation of entomologists.

We published two books during the year, each in its own way a landmark. *Basil the Beetle's Scary Adventure* represented a new departure for the Society in the form of a 'faction' book: a fictional



story for children about a beetle, supplemented by factual information on relevant entomological aspects. We are very grateful to the author, Mrs Sonia Copeland Bloom, for shouldering the production costs of the first edition of the book, all proceeds from which will also flow to the AES; and to Sonia's children, including the Hollywood actor Orlando Bloom, for attending the launch at our AGM.

The second edition of *A Dipterist's Handbook*, edited by Peter Chandler of the Dipterist's Forum, was published in November. Weighing in at 525 pages, the book was twice the size of the first (1978) edition and was met with acclaim and delight by British dipterists. The publication of affordable entomology books which might otherwise never see the light of day is one example of how the Society benefits the wider entomological community. Dipterists form 5% of the Society's membership, and it is hoped that this excellent new book will help to increase interest in this biologically and medically important order of insects (numbering over 7000 species in Britain alone).

EVENTS

Our 2010 Members' Day and AGM were held at the new Angela Marmont Centre at the Darwin Centre, Natural History Museum, London. This was very well attended, with many younger members going home happily clutching boxes of larvae of the moth *Brahmea bearseyi* kindly donated by Mrs Judith Rose. In addition to a full programme of interesting speakers – including excellent talks by members of the Bug Club – numerous tours of the museum's entomological collections were arranged. Posters and exhibits displaying the history of the Society over its first 75 years were also shown and our President, Dr Robin Wootton, delivered the third annual Tesch Lecture, on the subject of flight in butterflies.

Our first Young Entomologists' Day was held at Oxford in February and was a great success. One of our youth members, Samuel Baylis, was the featured photographer on a BBC Springwatch programme in June. A small garden party was hosted at the home of Colin Hart to celebrate the 75th anniversary of the Society. Other events held during the year included a National Moth Night event at the Perivale Wood Nature Reserve, which is owned and managed by the Selborne Society; a visit to the British Entomological and Natural History Society at their headquarters at Dinton Pastures Country Park, during National Insect Week; a butterfly walk on Horsenden Hill, west London; our annual AES Open Day at The Oxford University Museum, in September; the AES Annual Exhibition and Trade Fair at Kempton Park Racecourse, in



October; and the Quekett Microscopical Club Annual Exhibition, in October.

Members of Council and others attended a number of outreach events during the year. These included a book signing at Waterstone's bookshop in Canterbury; the Royal Entomological Society's annual meeting, in Swansea, where we had a display table and showed four posters about the history of the Society, including one on the newly acquired *Entomologist's Record*; Buckland May Fair, Surrey; Springwatch Festivals at Alexandra Palace Park, London and in Stroud, Gloucestershire; Gatton Park and Banstead countryside days, Surrey; Burgess Hill Wildlife Day, West Sussex; Wildlife Aid Open Day, Leatherhead, Surrey; Osterley Park, west London (two events); and the BENHS Exhibition.

CONSERVATION

The Society continues to participate actively in Invertebrate Link (the Joint Committee for Conservation of British Invertebrates) and our Conservation Secretary, Dr David Lonsdale, was once again elected to membership of the Committee's Executive. David drafted the revised InvLink paper 'Insect translocation – a code of conservation practice' which was published in the British Journal of Entomology and Natural History during the year. The AES plans to prepare a summary of the code for wider distribution.

With other InvLink member-organisations, the Society has expressed concern about the long delay in the review of species listed for protection under the Wildlife and Countryside Act 1981. By the end of the year the sixth review was almost due, and yet the fifth review, which began in 2006, had not been completed. The Society would be glad to hear from any members who have suggestions for amendments that we could suggest for the sixth review. Species can be added or removed and it is also possible to amend the status of currently listed species (for example, by decriminalising their collection, while continuing to protect their 'places of shelter' from destruction).

Our thrice-yearly conservation newsletter, Invertebrate Conservation News (ICN), which contains analysis of important trends and perspectives in this area, is subscribed to independently by many non-members and was again issued free to AES members with their February, June and October subscription periodicals. The topics covered in ICN included potential threats to the invertebrate faunas of deep sea 'smokers', the accidental introduction into Britain of invasive invertebrates such as the "Killer shrimp" *Dikerogammarus villosus* and the effects of different farming systems on invertebrate populations.



An illustrated poster outlining how conservation has developed as a key element of the Society's focus was presented at our 75th Anniversary Members' Day at the Darwin Centre, Natural History Museum, London, in April. An electronic copy of the poster is available to download from the members' area of our website. An A4 size hard copy is also available on request.

We remain a member organisation and an observer at board meetings of Buglife – The Invertebrate Conservation Trust.

DEVELOPMENT, PUBLICITY & AFFILIATIONS

During the year we received a grant of £500 towards the running of the Society from a charitable trust, which wishes to remain anonymous. Donations from members exceeded this amount by a considerable margin. A number of our members took charge of AES and Bug Club display banners and leaflets during the year, in order to publicise the Society at local events.

An article on the Bug Club was published in *Antenna* (the house journal of the Royal Entomological Society) authored by AES President Dr Robin Wootton, Dr Kieren Pitts and Professor Lin Field (RES President). It is hoped that RES Fellows will become increasingly interested in contributing to Bug Club activities as a result.

Our **website** continued to undergo continual improvement during 2010 and now sports a substantial glossary of entomological terms. The AES website is an increasingly useful resource for anyone seeking a gateway to entomology, and our Webmaster, Dr Kieren Pitts, is to be congratulated on his achievement of placing us on a level playing field with larger natural history charities in this regard, with all the active daily commitment that involves.

Affiliated groups: During 2010 we entered into an affiliation with the Invicta Arachnid Club, which is based in Kent; we confirmed our affiliation with the Wildlife Gardening Forum; and a small entomological society was set up in Bangor University, described as a local branch of the AES. We attended the annual exhibition of the Quekett Microscopical Club in October.

AWARDS

The Hammond Award [*Best contribution to the AES Bulletin during 2010*] was awarded to John Walters for his article on the ecology of Kugelann's ground beetle.



The Gardiner Award [*Best Bug Club Magazine article*] was awarded as follows:

Under 9 age group: First Prize Winner: Magnus McLeod. Highly Commended: Sophie Brown.

9-13 age group: First Prize Winner: Rachel McLeod. Highly Commended: Georgette Beaunier; Safiya Lim; Evie Privitera.

The Bradford Award [*Best exhibit from an adult member at the Kempton exhibition*] This was awarded to Kevin Chuter, for his exhibit on wood-boring insects. Robert Heckford's exhibit on *Ectoedemia heckfordi*, a small moth discovered in Britain for the first time by the exhibitor in 2004 and named after him, was highly commended.

The Ansorge Bequest [*Best exhibit by younger members at the Annual Exhibition*]: Once again, we had a number of excellent junior exhibits to choose from. It was decided to award First Prize to George Spence, for his very worthy poster which demonstrated some careful and thoughtful entomological observations. Highly Commended award winners this year were Daniel Osmond, Magnus McLeod and Samuel Baylis.

Gratifyingly, the other junior exhibits were also excellent and their exhibits generated much interest among members and others who viewed them, which serves to remind us that winning a prize is definitely not the only reason for exhibiting!

Young Entomologists' Day: The overall prizewinner at our first Young Entomologists' Day at Oxford was Safiya Lim, aged 9 (see separate report).

Cribb Award: No nominations were received for the Cribb Award during 2010.

Michael Majerus Grant: No grants were awarded under this scheme during 2010.

GOVERNANCE

The AES Council met on three occasions in 2010, at the rooms of the South Place Ethical Society in Conway Hall, Bloomsbury. The December meeting was cancelled due to the extreme weather conditions and their effects on public transport. Meetings of the Governance and Publications committees also took place during the year.

Miss Kara Majerus was elected as a member of Council at the AGM. The following retire from Council by rotation at this meeting: David



Humphries, Dafydd Lewis and Peter May. Dafydd Lewis and Peter May have expressed their willingness to remain on Council if duly nominated and elected. Paul Sokoloff (AES Custodial Trustee) has also expressed his willingness to be nominated as a full member of Council. Our Independent Examiner of Accounts, John P. Flynn, stepped down this year, after 7 years of much valued service. Martin Hough also resigned as a member of Council and as Bulletin Co-Editor, following many years of service to the AES.

Our President, Dr Robin Wootton, steps down at this AGM following two very successful years during which, among other contributions, he helped place the Bug Club affiliation on a stable footing and contributed to our knowledge of insect flight through articles in the Bug Club Magazine and his excellent Leonard Tesch Lecture in 2010. Council's nominee for AES President for the coming year is Peter Hodge, a respected coleopterist and long-standing AES Council member.

DEATHS

Finally, it is with great sadness that we note the deaths since the last AGM of the following members of the Society, without whom the world of natural history is the poorer:

Mr N.A. (Andy) Callow (6998) of Bristol.

Mr C. Kirkby-Smith (12113) of Bexleyheath, Kent.

Mr Kenneth Palmer (7255) of Sheringham, Norfolk.

Mr J.P. Marriott (13845) of Emsworth, Hants.

Mr D.S. (Don) McNamara (5537) of Newnham-on-Severn, Glos.
(a former member of the AES Council).

Mr M.S.L. (Mac) Simpson (2735) of Abbots Ripton, Cambs.
(also a former member of the AES Council)

The Society would particularly like to record its sincere appreciation of Don McNamara's generous donation to the Michael Majerus Fund, shortly prior to his death, and to the estate of Andy Callow for his substantial bequest to the Society.

Dafydd Lewis
Hon Secretary
4th March 2011



TREASURER'S REPORT

FOR THE YEAR ENDING 31st DECEMBER 2010

Having now published the *Entomologist's Record* for two years, the Society is pleased to report that the General Fund has made a profit during 2010 in the sum of £2087, which is more than enough to offset the loss made in 2009. The journal is still a relatively recent addition to the Society's periodicals and it will be a few more years before the finances are likely to be at a steady level. The number of subscribers to the *Entomologist's Record* is still slowly increasing, and this trend will need to continue if it is to remain a viable publication for the Society. However, the early signs are encouraging and it is hoped that this important journal will continue for many years to come. The Bug Club was jointly funded by the RES for the second time this year and this has enabled us to make improvements to the Bug Club Magazine and to run more Bug Club events. RES funding in 2011 will be at the same level as in 2010.

Investment income levels, which affect most of our separate funds, are still much lower than a few years ago, but capital values are slowly starting to rise again.

The balance of the grant received during 2009 from the OPAL Project towards the cost of IT equipment and publicity materials has been utilised this year, and another application has been formulated.

The Crow and Hammond Fund has seen a profit again this year, although capital values remain lower than a few years ago, and will remain so until the money markets return to previous levels. Monies from the fund were used for promotional purposes and awards.

As a result of the continuing poor investment income the Anson Fund, used to make awards to juniors, made a loss again in 2010, being only the fourth time in many years. Again, it is hoped that this loss in capital value and drop in income will only be temporary. Awards totalling £180 were made to juniors, funded by an anonymous donation to the Anson Fund.

The Publications Fund has made a small loss of £161. Although this is only a small amount, much effort is expended in producing our publications, so it is anticipated that a full review of pricing and other aspects of the publications will take place in 2011.

Peter May
Hon Treasurer
4th March 2011



AMATEUR ENTOMOLOGISTS' SOCIETY

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 2010

EXPENDITURE				INCOME			
GENERAL FUND							
2009		2010		2009		2010	
£				£			
	<u>Journals</u>				<u>Membership Income</u>		
40540	Journal printing	34180		34307	Subscriptions	39403	
9891	Journal Despatch	7566		16808	Donations	9948	
<u>936</u>	Wants & Exchange Lists	<u>815</u>		<u>54</u>	Wants & Exchange Lists	<u>34</u>	
51367		42581	42581	51169		49385	49385
	<u>Membership Services</u>				<u>Other Income</u>		
6734	Exhibitions	10305			899 Sale of Goods	1381	
1129	Stock Purchased	1073			1875 Advertising Revenue	1745	
0	Decrease in value of Stock	0			11005 Exhibitions	10914	
<u>1014</u>	Registrars Fees & Expenses	<u>4080</u>			139 Investment Income	46	
10874		15458	15458		<u>684</u> Increase in value of stock	<u>566</u>	
	<u>Administration</u>			<u>14603</u>		14652	<u>14652</u>
2700	General Admin. Expenses	2127					
1806	Council Meetings/AGM	1705					
312	Insurance	99					
148	Conservation	0					
4966		3931	<u>3931</u>				
67207	Total Expenses		61950	65772			64037
0	Surplus Income to General Fund		<u>2087</u>	<u>1435</u>	Deficit to General Fund		0
67207			64037	67207			64037
PUBLICATIONS TRADING ACCOUNT							
2009		2010		2009		2010	
977	Editorial & Misc Expenses	1505		6332	Proceeds of Sale	2571	
0	Printing Publications	0		404	Investment Income	1042	
<u>2551</u>	Decrease in Stock Value	<u>2209</u>		0	Increase in Value Of Stock	0	
3528		3774		6736		3613	
<u>3208</u>	Surplus to Publications Fund	<u>0</u>		0	Deficit to Publications Fund	<u>161</u>	
6736		3774		6736		3774	
CROW & HAMMOND FUND							
2009		2010		2009		2010	
440	Awards	200		<u>5471</u>	Investment Income	<u>4047</u>	
<u>670</u>	Promotional Leaflets	<u>356</u>		5471		4047	
1110		586					
<u>4361</u>	Surplus to fund	<u>3461</u>		0	Deficit to Fund	0	
<u>5471</u>		4047		5471		4047	
DIRECTORY FOR ENTOMOLOGISTS PUBLICATION FUND							
2009		2010		2009		2010	
0	None	0		0	Advertising	0	
0		0		2	Interest	1	
				2		1	
2	Surplus to Fund	1		0	Deficit to Fund	0	
2		1		2		1	
ANSORGE FUND							
2009		2010		2009		2010	
111	Investment deficit	0		0	Investment Income	<u>98</u>	
<u>180</u>	Ansorge Award	<u>180</u>		0		98	
291		180					
0	Surplus to fund	0		<u>291</u>	Deficit To Fund	<u>82</u>	
<u>291</u>		180		<u>291</u>		<u>180</u>	
OPAL FUNDING							
149	Equipment	<u>2588</u>		<u>2800</u>	Donations	0	
149		2588		2800		0	
<u>2651</u>	Surplus to Fund	0		0	Deficit to Fund	<u>2588</u>	
<u>2800</u>		2588		2800		<u>2588</u>	
BALANCE SHEET AS AT 31 DECEMBER							
2009		2010		2009		2010	
£		£		£	INVESTMENT VALUATION	£	
	GENERAL FUND				at 31st December		</



BUG CLUB: ANNUAL SUMMARY FOR THE YEAR 2010*

MEMBERSHIP

Total membership of the Bug Club as reflected in the number of mailing labels of the Magazine at 31st December 2010 was 273, an increase of 37 over the previous year.

PUBLICATIONS

The bimonthly 28 page Bug Club Magazine was produced in full colour for the second year running, thanks to funding from the RES. The Bug Club was referenced in a book published by the AES for children, *Basil the Beetle's Scary Adventure*.

EVENTS

The Bug Club was catered for or promoted, either solely or partially, by the AES at around 20 events of various kinds during the year, including the 75th anniversary Members' Day and AGM at the Darwin Centre, Natural History Museum, London. This was very well attended, with many younger members going home happily clutching boxes of larvae of the moth *Brahmea hearseyi* kindly donated by Mrs Judith Rose. The Young Entomologists' Day (YED) at Oxford was repeated again in February 2011 and was once again a success, and is now likely to become a permanent fixture on the Bug Club calendar.

DEVELOPMENT, PUBLICITY & AFFILIATIONS

Publicity materials including a number of Bug Club display banners, some to be used by AES and RES Members/Fellows, reprinted promotional leaflets and merchandise (including a new Bug Club bag to be used at events such as the YED) were procured.

DONATIONS

The AES Ansorge Fund received an anonymous donation of £180 in 2010, which covered the amount of prize money awarded to Bug Club members for prizes at the AES Exhibition.

AWARDS

The Gardiner Award 2010 [*Best Bug Club Magazine article in 2009*] was awarded at the AES AGM, as follows:

Under 9 age group: First Prize Winner: Magnus McLeod. Highly Commended: Sophie Brown.



9-13 age group: First Prize Winner: Rachel McLeod. Highly Commended: Georgette Beaunier; Safiya Lim; Evie Privitera.

The Anson Bequest [*Best exhibit by younger members at the 2010 Annual Exhibition*]: It was decided to award First Prize to George Spence, for his very worthy poster which demonstrated some careful and thoughtful entomological observations. Highly Commended award winners this year were Daniel Osmond, Magnus McLeod and Samuel Baylis.

Gratifyingly, the other junior exhibits were also excellent and their exhibits generated much interest among members and others who viewed them.

Young Entomologists' Days, 2010 & 2011: The overall prizewinner at our first Young Entomologists' Day at Oxford was Safiya Lim, aged 9. The overall winner in 2011 was George Spence, aged 9.

OTHER ACTIVITIES

An article on the Bug Club was published in *Antenna* (the house journal of the Royal Entomological Society) authored by AES President Dr Robin Wootton, Dr Kieren Pitts and Professor Lin Field (RES President). It is hoped that RES Fellows will become increasingly interested in contributing to Bug Club activities as a result.

GOVERNANCE

Dr Robin Wootton stood down as Chair of the Bug Club Committee in favour of Prof. Lin Field at its annual meeting held on 16th November 2009 at the RES headquarters in St Albans. Committee members Nov 2010 – Nov 2011 are Jim Hardie, Bill Blakemore, Lin Field (RES) and Dafydd Lewis, Peter May and Kieren Pitts (AES).

Dafydd Lewis 1.iii.2011

* Covers March 2010 to March 2011, except for membership numbers, which are as reported by the AES at the 2010 year end; and the 2010 YED prizewinners are listed.





“Rare” Cyprus butterflies common in the North

by Daniel and Hilary Haines

56 Vesta Road, London SE4 2NH.

Butterfly recording in Cyprus may be divided into pre-division and post-division of the island. Following a terrible period of internal strife in the 1950s and 1960s Turkey occupied the predominantly Turkish north, and the island became two separate states in 1974. Until recently travel between the two has been very difficult, with dire warnings of the imaginary dangers of crossing the border, or the Green Line, as it is known.

So pre-division publications, of which there are two major ones, cover the whole of the island, and those published post-division records tend to cover only the part of the island where the author lived. In the vast majority these are from the South, from which three comprehensive publications have been made. Only one comprehensive report from the North has been published.

We, the authors, have made detailed reports of what we have observed and photographed since 1999. Looking back at the other authors' literature we have been struck by the consistency with which they have recorded three species as rare and local, or very rare. These three are the Two-tailed Pasha, *Charaxes jasius*, the Lattice Brown, *Kirinia roxelana*, and the African Ringlet, *Ypthima asterope*.

When we visit North Cyprus we always base ourselves briefly in Girne (Kyrenia), and mainly in a bungalow in Kantara village, near Kantara castle, at a height of approximately 1,700 feet, close to the ridge of the eastern end of the North Cyprus mountain range, the Besparmak Mountains.

Charaxes jasius The Two-tailed Pasha

This is the second largest butterfly species in Cyprus. Once the observer is familiar with it, it can readily be recognised even at a distance as it flies around the tree tops. It can be confused with the Red Admiral, *Vanessa atalanta*, in a darkening evening as they settle for the night, but are easily distinguished once settled.

Bucknill (1911)¹ describes this species as local. He noted that it would come to sugared trees and to putrid carob pods. Turner (1920)² wrote that he had found this species very sparingly. He also noted that it came to sugared trees. (A way of attracting moths for study is to paint a sugar solution onto the trunks of trees). Bucknill and Turner observed butterflies in the whole of Cyprus.



Then we come post-1974, and Parker (1983)³ describes the species as local in its haunts, but that he had seen it. John (2000)⁴ saw two specimens, both associating with fruit trees. Eddie John (pers. comm.) commented that, in seven visits to the south since his 14-month working period in Cyprus in 1997-1998, he has seen this species on five of these visits, with a total of eight specimens being recorded. These were observed in their usual habitats, rather than being attracted to lures. Makris (2003)⁵ describes *C. jasius* as a rare and local butterfly in Cyprus. He says that it is not recorded as visiting flowers, and only feeding on the juices of ripe fruit.

Our own experiences have been very different (Haines and Haines 2011)⁶. *C. jasius* is a most regular visitor to the small front garden of the cottage. We often see more than six at a time, and have seen three pairs carrying out their courting flight at the same time. This flight consists of a sort of a three dimensional ballet, with sweeps, circles and glides from tree-top height to ground level.

We learnt at an early stage that these butterflies are very partial to alcohol. The first one we met was stealing the very good local lager, Efes, from my can. The local restaurateur tells us this is a frequent occurrence at his establishment. So we started to experiment with various alcoholic drinks, and soon found that they prefer weaker alcohols, especially with added fruits such as grapes, raisins and figs. But what really makes the drink most attractive is a pinch of bakers' yeast that makes the whole brew ferment, and attracts butterflies from far and wide. (Figure 1) Of course, the baiting of traps is a well-accepted method of capturing *Charaxes* spp.



Figure 1. A Two-tailed Pasha drinking "Butterfly beer" from a half grapefruit.



We were surprised to see a group of *C. jasius* feeding on carob flowers in the autumn of 2009 (Haines and Haines 2010)⁷. We had seen very few of the species on that visit, and it was clear that they preferred the putrid smelling carob flowers to our special brew beer.

We have recorded seeing *C. jasius* on twenty five occasions since 1999, spread over six different five kilometre square areas of North Cyprus. They are on the wing from May to November.

Kirinia roxelana The Lattice Brown

This handsome butterfly is about the same size as a Red Admiral. It is often the first butterfly to fly in the mornings, and the last to fly in the evenings. It is sometimes trapped in moth traps with ultra violet light, and may fly to fluorescent lights in homes and gardens.

K. roxelana was only seen by Bucknill¹ at one site near St Hilarion, a beautiful and well preserved old castle. He found it difficult to catch as it flew around the tops of carob trees.

Turner² wrote that it is a rather rare and very local species occurring only at the Kyrenia (Besparmak) mountain pass, along which the main road from Nicosia to Kyrenia runs, and on Mount Troodos. He found it in carob trees and in thick hedges, and very difficult to take. Parker³ reports *K. roxelana* as being not common and rather local, again around the foothills of Troodos and the Besparmak (Kyrenia) mountain pass. He found that it flew only when disturbed. Wiltshire (1948)⁸ found it haunting small gullies with grassy tops, but made no comment on its frequency. John⁴ failed to find this species in 1997-1998, but added (pers. comm.) that he had seen *K. roxelana* on three recent visits, with the species being seen on nine days (totalling 11 specimens) in eight different 5km squares within the Troodos Mountain range.

Makris⁵ describes it as a rare and local butterfly. Our own experiences have again been very different indeed. During the flying period of May to July it is one of the more common butterflies of North Cyprus. It has a charming habit of flying with its straight, undulating slow flight just under the roof of any veranda where we have been taking breakfast, and again in the evening. If they settle on the wall adjoining the roof they may be taken by geckoes.

These butterflies are strongly attracted by our butterfly beer, and several may gather around one half grapefruit to take their fill. We put our fermenting mix into carefully eaten grapefruit shells, which act as acceptable cups to butterflies for about a fortnight, before the shell itself ferments and disintegrates in a most satisfactory organic manner. On occasions we have had over twenty feeding simultaneously in the small Kantara bungalow garden, spread over several feeding posts.



On one sunny, still day we were alerted to a small swarm of butterflies flying around the tall blue flowered globe thistles growing alongside the excellent mountain crest road running from St Hilarion Castle to the east of the mountain range. On investigation we found *K. roxelana* feeding in large numbers on these flowers (Figure 2) This was interesting, as Makris⁵ states that it has not been seen feeding on flowers. We have seen this most attractive butterfly along the whole of the Besparmak range at the higher altitudes of 1,000 to 2,000 feet. We have made sixteen recordings of this species over eight different and widespread five kilometre squares. Rare and local they are not.



Figure 2. Lattice Brown feeding on a Blue Globe thistle flower.

Ypthima asterope African Ringlet

This unostentatious little mouse-brown butterfly with attractive eye spots of iridescent silver blue, encircled by a yellow ring at the tip of the forewing, is a native of Africa and Asia (John *et al.*, 2010)⁹. It is very easily missed unless the observers' eyes are accustomed to it.

Bucknill¹ writes that it has only been noticed by Major Bolton in April and July on the Kyrenia (Besparmak) mountains. Bucknill had access to Major Bolton's collection, but gives no further reference. Turner² writes that *Y. asterope* was only found in the Besparmak pass and is a rather rare species. Parker³ caught three specimens. John⁴ saw none in 1997-1998, but advises (pers. comm.) that recent investigations in the southern part of the island have shown the species to be largely confined to western and north-western coastal regions, where it may be locally common (John *et al.*, 2010)⁸. Makris⁵ describes it as a very rare and local butterfly.

We have found *Y. asterope*, often in considerable numbers, on every visit to North Cyprus that we have made between April and November,

the greatest numbers being seen in spring and autumn. A part of our explanation for this difference from other observers is that it is such an undistinguished butterfly, and is very easily overlooked. We usually see it flying among the slightly larger, and much more colourful Cyprus Meadow Brown, *Maniola cypricola*.

Another recent observer who clearly has her eye in for this little butterfly, Alison McArthur, notes that they tend to be seen around freshly disturbed soil, such as around new road constructions. She writes *"I should like to clarify the point that the road works took place in the region of four to six years ago rather than being ongoing or very recent. However, as I said, the resulting habitats created by that road widening appear to have provided optimal habitats for African Ringlet – namely earth bankings, cut rock faces, loose rocks and scree, concrete drainage channels and under-road ductings."*

My overall feeling is that African Ringlet has probably always been present locally in this area, but was previously, almost certainly, more difficult to see. Now, thanks to man's intervention, it has come to these new roadside habitats, at and below eye level, rather than being more restricted to inaccessible gullies, areas of dangerous rock falls and within open areas of garigue and phrygana. Therefore I've been lucky enough to find it regularly."

We have recorded *Y. asterope* (Figure 3) on twenty four occasions since 2002, when we first came to recognise it, in fifteen different five kilometre squares spread over most of the eastern part of North Cyprus. We have recorded them from mountain top to coast. So again we would describe this as a fairly common butterfly.

From these observations it is apparent that the above three species are considerably more widely distributed in North Cyprus than in the



Figure 3. African Ringlet resting on rubble.



South. This may be due to more favourable climatic conditions or to slightly different geology and flora. Whatever the case more observations are needed from North Cyprus, which is now easily accessible by road from the South. It would be most helpful to all interested parties if any observations could be passed on to Eddie John by email. His details are:

Email: eddiejohn100@gmail.com

Website: <http://www.cyprusbutterflies.co.uk>

We can assure you from our own experiences that you will get a most helpful and informative response.

***Chazara persephone* Dark Rockbrown**

This really is a rare butterfly in Cyprus. It was last reported by Turner in 1920², and has subsequently been removed from current lists of Cyprus species. To our great surprise we were able to see and photograph one near to the bungalow that we use in Kantara on June 27 2010. (John *et al.* 2011)⁹. We did not identify what we had seen until Eddie John identified it for us. So North Cyprus can claim a species no longer known in the South. Our own opinion is that it was probably blown over the forty mile wide channel from Turkey.

Acknowledgments

Apart from the solid and ongoing encouragement and help that we have received over the last decade and more from Rob Parker (whose work is at Reference 3) and from Eddie John, we must thank Mr Yusuf Gazi for his hospitality and for allowing us to stay in Toad Cottage, the bungalow in Kantara village. The small garden of Toad Cottage has enabled more butterfly recordings to be made than any other similar sized area in North Cyprus.

References

- 1 Bucknill, J. A. S. 1907-11. *List of Butterflies Known to Occur in Cyprus*.
- 2 Turner, H.J. 1920. *The Butterflies of Cyprus*.
- 3 Parker, R. 1983. The Butterflies of Cyprus 1988 (Record of a year's sighting). AES Pamphlet no. **15**.
- 4 John, E. 2000. *Butterflies of Cyprus 1998* (Records of a year's sightings). AES Pamphlet no. **15**.
- 5 Makris, C. 2003. *Butterflies of Cyprus*. Bank of Cyprus Cultural Foundation. ISBN 9963-42-815-0
- 6 Haines, D.H. and Haines, H.M. 2011. *The Butterflies of North Cyprus*. Spiderwize. ISBN: 978-1-907294-89-1
- 7 Haines, D.H. and Haines, H.M. 2010. An Autumn visit to Turkish North Cyprus. *Bull. amat. Ent Soc* **69**: 195-197.
- 8 John, E., Gascoigne-Pees, M. and Larsen, T.B. 2010 *Ypthima asterope*: its biography, lifecycle, ecology and present status in Cyprus, with additional notes from Rhodes and the eastern Mediterranean. *Entomologist's Gazette*, **61**: 1-22.
- 9 John, E., Haines, D.H. and Haines, H.M. 2010. Has *Chazara persephone* retained a secretive foothold in Cyprus for one hundred years? *Entomologist's Gazette* **62**: (in press).



The Bug Club – a brief history

423939-1001

by Dr Robin Wootton¹, Dr Kieren Pitts² and Professor Lin Field³

¹ School of Biosciences, Exeter University, 61 Thornton Hill, Exeter EX4 4NR.

² Institute for Learning and Research Technology, University of Bristol,
8-10 Berkeley Square, Bristol BS8 1HH.

³ Rothamsted Research, Harpenden, Hertfordshire AL5 2JQ

On January 1st 2009, after several months of negotiation, the Royal Entomological Society and the Amateur Entomologists' Society entered into partnership, for five years in the first instance but with the intention of continuing indefinitely, in running the Bug Club – the country's foremost organisation for young entomologists. This excellent development closed a loop. The Club began with the RES, but later joined with, and gave its name to the youth wing of the AES, has remained so ever since, and has now returned, in part, to its origins.

The Bug Club, under that name and in its present form, began in the early 1990s in the short-lived Young Entomologists Scheme (YES) of the RES. This was launched in 1990 as the Society's Youth Development Scheme, with the appointment of Dr Clive Betts as Youth Development Officer (Figure 1). Articles by Richard Harrington and by Clive himself in *Antenna* **14** (4) and **15** (1) show the enthusiasm and energy with which the scheme was envisaged and pursued. Based at Exeter University, and consulting extensively with the University's School of



Figure 1. Dr Clive Betts, the Bug Club's founder, in the 1990s.

Education, Clive contacted RES Fellows, school and university teachers, wildlife centres, museums and youth groups, seeking active support; worked with teachers in and outside the classroom; developed and



trialled resource packs; organised a conference on Insects in Education and three INSET courses for teachers; and publicised the scheme widely, in person and through radio, articles, leaflets and displays and local and national societies. All to little avail. The aim had been to make the scheme self-financing within two years, primarily through sales of resource materials to schools, and it was soon clear that this was pie in the sky. The National Curriculum was new and still changing. Teachers were struggling to adapt, and had little enthusiasm and time to promote extracurricular subjects, particularly at secondary level where Council had decided the scheme should be focussed. With only six months remaining, income had still not reached £2000, and the future was bleak. Philosophically, Clive accepted a staff post at Exeter University, and the scheme closed: YES became NO.

However, one aspect of the scheme was thriving, and continued to do so. In early 1991, Clive had started an insect club, initially for schools, with enthusiastic help from a group of undergraduates in Exeter University's Biological Society. These included Nick Baker, now a well-known television wildlife presenter and author; Gordon Ramel, now a freelance naturalist and author of most of the extensive insect pages on the Earthlife web site; and Kieren Pitts, now a Senior Analyst/Programmer at the University of Bristol and co-author of this article, who has remained with the Club ever since, and co-edits the magazine.

The Club – renamed the Bug Club in early 1992 – was immediately popular, particularly with children of primary and early secondary age, who proved, as Clive had always predicted, to be much more receptive than the older audience at which the YES was targeted. 'Minibeasts' *were* on the national curriculum for the early key stages, and the response of primary teachers to the YES had always been more positive. For an annual subscription of £4.50 members received a quarterly newsletter, packed with articles, letters, activities and puzzles, to which they could send their own questions and expect answers. Events were specially organised for them, and they could get reductions in the cost of entry to some local attractions, and in the price of Dorling Kindersley books. The organisers ran insect-based activities and demonstrations at the new Crealy Adventure Park near Exeter and at the Devon County Show, attracting great local attention. Although its events were inevitably restricted to the South West, a nationwide membership began to develop, and this was enhanced by coverage in Blue Peter and Radio 5. By the end of 1993, 500 names were on the database. Clive now stood down as Chairman, and was



replaced by an Exeter postgraduate, Simon Bell, who had already markedly improved the newsletter. The future looked good.

However, expenses were rising. The Royal Entomological Society provided some initial financial support after the YES closed, but the cost of producing and mailing the newsletter was soon stretching the Club's resources, and by the end of 1994 it was struggling, though by now self-financing. 1995, however, was a turning point. Nick Baker began to attain celebrity status as presenter of the Really Wild Show, and continued to promote the Club. Gordon Ramel, a tireless contributor to the newsletter, created the Club's first web site, the foundation for his later, prolific Internet activity. A glow-worm evening was covered on television, the *Sunday Times* featured the club, and interest and membership increased. Links with Exeter University were still strong, and the original group of Exeter students continued to drive the Club, even when they began to disperse to jobs and higher degrees after graduation, but by 1996 it was clear that stronger, national support was necessary, and an approach was made to the Amateur Entomologists' Society.

The AES had long been involved in activities for young people. The founder, Leonard Tesch, was a housemaster at Harrow, and actively promoted entomology among the boys (Figure 2). The Society had formally established a Junior Section in 1946, and this was still active. In 1996 the Bug Club and the Junior Section coalesced to form the AES Bug Club. The first Chairman was Darren Mann of Oxford's University Museum, who had been leading the Junior Section. The Secretary, Zoe Masters, the Editors, Simon Bell and Kieren Pitts, and the Events Coordinator, Gordon Ramel, were all Exeter-generated Bug Club veterans.

One of the first areas to show the direct support of the AES was the *Bug Club Newsletter* (as it was known then; it was later changed to the *Bug Club Magazine* to reflect the increase in quality of the publication). The first newsletter of the AES Bug Club was published in February 1997 and featured a colour cover and central section. The newsletter was now published more frequently under the umbrella of the AES with the number of issues increasing from four to six a year. It has been published six times a year, without a break, ever since and has featured articles on a wide variety of topics from Goliath beetles to mites, and leaf galls to log piles. The magazine also regularly includes articles submitted by members of the club and, to recognise their contributions, the AES makes the Gardiner Award (named after Brian Gardiner FRES and president of the AES 1977/1978) each year for the best article by a Bug Club member to be published in the magazine.



Figure 2. Leonard Tesch, the founder of the AES, with pupils at Harrow School in the 1930s.

The magazine is just one example of the improvements made to the Bug Club when it became part of the Amateur Entomologists' Society. The Club has had a greater and more regular presence at events and has also increased the number of events open to members. The Club has held events at a variety of well-known locations including the Natural History Museum, Oxford University Museum of Natural History, the Royal Horticultural Society headquarters at Wisley (Figure 3) and London Zoo.



Figure 3. Pond-dipping at RHS Wisley, 2008.

There has also been an increased and integral involvement of the Bug Club at the AES annual members' day. Originally the Bug Club held a series of craft activities and tours. In more recent years, Bug Club members have given talks as part of the main events programme.

The AES has also published books aimed specifically at young entomologists and these have actively encouraged the entomologists of tomorrow. The first such book was *Butterflies throughout the year* published in 2007 and then followed in 2008 by *A year in the lives of British ladybirds*. This second book marked one of the first collaborations between the AES and RES aimed directly at young entomologists. The RES provided some financial support to help publish the book and the cover features logos of both societies.

More was to follow. In 2006 and 2007 Nick Holford, AES Registrar at the time, made initial approaches to the RES which in due course enabled the then President of the AES, the late Prof Mike Majerus, to lead discussions with a view to the RES becoming re-involved with the Bug Club. The RES was pleased to do so. The Bug Club is now formally a 'joint' enterprise and the RES has promised financial support



for the Club at 50% of its costs. This support opens new possibilities. It is already allowing the Club to improve its services, to expand its activities and to realise some long-held ambitions. The *Bug Club Magazine* is significantly improved, and will continue to be so. Further evidence of present vitality is provided by the recent Young Entomologists' Day at Oxford at which eighteen excited young people – the youngest just five years old! – gave talks (most of them using PowerPoint!) about their entomological exploits as well as finding time to visit the Hope entomological collections and doing some live insect handling. It is hoped that future development will include outreach to children and schools on a limited scale.

At the present time, the Bug Club has more than 240 members, from all over the United Kingdom and abroad: we have members in the Irish Republic, the USA, Australia and Kazakhstan! In the past there has been a tendency for activities to be concentrated in the Home Counties, but this is changing. In the last two years there have been Bug Club events in Liverpool, Oxford, Cambridge and Worcestershire, as well as many nearer to London. Most recently, the AES has established affiliation with the Devonshire Association, which has a flourishing Entomology Section, and Bug Club members, with their parents, will be welcome at the Section's many events in the County.

The future of the Club is assured, but if it is to operate and expand as we hope, the help of experienced entomologists is badly needed, and this article is partly a Call to Arms. The principal ways in which RES and AES members can help are:

- (1) in association with Bug Club coordinators, suggesting, organising and assisting with events and activities for young people in different parts of the UK;
- (2) writing articles, puzzles etc., and suggesting practical insect-related ideas for the *Bug Club Magazine*.

Please do consider if and how you can assist – and then get in touch. The immediate point of contact is the AES Youth Secretary, Dr Kieren Pitts, kieren@amentsoc.org, or at the postal address which heads this article. Your Club – the next generation of entomologists – needs you!

EDITOR'S NOTE: This article, with a different title and slightly different text, first appeared in *Antenna* (3), 2010.





Letter from Spain – 11th in a series – local Mantids, a further update and corrections

by David Keen (3309L)

Calle Casto Bancalero 11, 41650 El Saucejo, Sevilla, Spain.

I am writing this article during January and February 2011 after having previously received a copy of Roberto Battiston's new book, *Mantids of the Euro-Mediterranean Area*. I had intended giving you an update of the information I had gleaned over the previous year but, before I do that, I need to correct some of the information given in the two previous articles.

Whilst, I am pleased to say that the identification of the material I found and have described before has been correct, there have been various changes to the nomenclature. I think that the best way to address this is to list the names used in my earlier articles for the species that I have encountered and to show the changes alongside as follows:-

original name	"new" name
<i>Hierodula bioculata</i> Burmeister	<i>Sphodromantis viridis</i> (Forskal)
<i>Mantis religiosa</i> Linnaeus (Linnaeus)	<i>Mantis religiosa religiosa</i>
<i>Empusa egena</i> Charpentier	<i>Empusa pennata</i> (Thunberg)
<i>Iris oratoria</i> Linnaeus	<i>Iris oratoria</i> (Linnaeus)
<i>Ameles abjecta</i> Cyrillo	<i>Ameles spallanzania</i> (Rossi)**
<i>Yersinia aptera</i> Yersin	<i>Apteromantis aptera</i> (Fuente)

**There are two main problems in considering *abjecta* as a synonym of *spallanzania*. As discussed at some length by Battiston, Cyrillo's original description was both unclear and incomplete and, to make matters worse, the holotype of *abjecta* is missing. Most authors now consider the current synonym status to be correct but there are still those who consider it to be synonymous with *A. decolor* whilst others still consider it to be a distinct species. I will follow the majority view and consider it to be *spallanzania* particularly as my specimens, using Battiston, key out this way.

Another necessary correction must be made to my first article. In the penultimate paragraph I refer to an additional species mentioned by Chinery which does not appear in Burr. From Battiston's book I have



learned that the *Perlamantis alliberti* of Chinery is a synonym for the *Discothera tunetana* of Burr. Battiston has used the same name for this species as Chinery. That means that Burr, as I said before, names 12 species for Spain and writing 100 years later, Battiston has only added one other species – *Pseudoyersinia paui* which he says is only found in one locality in the Province of Castellon, north of Valencia. Thus, on the face of it, this is another species that is unlikely to turn up down here. He also includes a further seven species that are only found in the Canary Islands and mentions a very doubtful record of another species from Portugal.

As far as a comparison of the number of the European species mentioned by Burr and then by Battiston is concerned, this is not easy. Burr, writing in very different times (he mentions that travellers seldom visit either Spain or Portugal!), only concerned himself with Western Europe which he specifies as “Europe west of Vienna”. By covering the Euro-Mediterranean Area, Battiston includes records from North Africa, the Middle East and Turkey and also the Canary Islands – altogether a very much wider area. Thus, comparing numbers would seem to be rather pointless here.

We can now consider the observations made during 2010 but I must start by saying that this was another disappointing year, with mantids only being seen on seven occasions. All of these were in or around our house and garden – and not once did I see one of these insects in the countryside. Why? You may well ask! The winter of 2009-2010 was very wet with the highest rainfall ever recorded locally. There was considerable damage to the local countryside and I have no doubt that many insects must have been washed away in the floods caused by the continuous heavy rain. Our own garden was under water for several weeks and this killed many of our established shrubs and small trees. This was followed by a dry and very hot summer which precluded me from making as many trips into the countryside as I would have liked. When one is approaching 70 one just has to be careful as a fall or injury away from the village could be extremely serious in the very hot sun.

However, let us look at what did turn up. Firstly on 30 July I found an adult *Mantis religiosa religiosa* on my front window sill. It was of the very dark brown form which I find quite often here. This was kept alive and was fed on “anything that moved” and was particularly aggressive. I hoped to breed from it and on the morning of 13 September I found two males in the garden, also of the brown form. These were introduced into the cage with the female and during the



afternoon and evening she mated with one of them and devoured both! Two batches of eggs were deposited over the next couple of days and these are still in the cage as I am writing this. No other specimens of this species were seen during the year but the female lived on until 29 October when she died without laying any more eggs.

The large, two spotted mantis, *Sphodromantis viridis* first turned up on 14 September, when a pair came to light. These were released into the garden on the following morning and the female, at least was never seen again. On 6 October and again on 14 October, a male came to light and was released on each occasion in the garden the following morning. Whether these were separate individuals or the same one returning more than once I do not know.

The only other species seen during the year was the very attractive *Iris oratoria*. A male came to light on 20 August and two more came in on 14 September. All were released into the garden. On 23 September I saw another male in our road and as I approached it flew off, did a tour of the garden and then alighted on our gate. There it rested for a couple of hours before flying off again.

I searched the garden on many occasions during the year in the hope of finding the nymphs, if not the adults, of the other species I have seen so often in previous years. All to no avail. Perhaps 2011 will prove to be more fruitful – only time will tell. However, I do hope that this further update will be of interest to fellow members.

References

- Battiston R., Picciau L., Fontana P., Marshall J. 2010. *Mantids of the Euro-Mediterranean Area*. WBA Handbooks, **2**, Verona: 1-240.
- Burr, Malcolm. 1910. *A Synopsis of the Orthoptera of Western Europe* pp 1 and 18-23. Oliver Janson. London.
- Chinery, Michael. 2000. *Collins Pocket Guide to Insects of Britain and West Europe*. pp 62-65. HarperCollins. London.
- Keen, David. 2008. Letter from Spain – An Introduction to the Mantids found in this area. *Bull.amat.Ent.Soc.* **67** (478) 106-111.
- Keen. David. 2010. Mantids found in this area – an update for 2009. *Bull.amat.Ent.Soc.* **69** (489) 55-56.





Sir Kenneth's White Admiral

By John Woolmer

Fig Tree Cottage, Roecliffe Road, Cropston LE7 7HQ



Sir Kenneth Bird had a long career in the law; he served for over thirty years as a judge on the criminal circuit. He had presided over many famous cases. Once, in his early days, he had the distasteful function of sentencing a man to be hanged. The only consolation for this sensitive man was that the case was open and shut. The verdict had been swift and unanimous.

He lived, in retirement, in a modest house in a village south of Newbury. He had some fine woodland which was managed for him by a forester called Arthur Harrod. When he had just passed the age of ninety, he was summoned to a dinner dance held for nonagenarian judges. During the dinner, he danced and talked with a distinguished Royal Person. While they were dancing, he was asked about his estate and his interests. He mentioned that he had some interesting butterflies on his estate.

"In particular, we have a fine colony of White Admirals which start flying about this time of year". The Royal Person was deeply interested and said that she knew of Red Admirals but hadn't heard of White Admirals. She presumed they didn't fly in Scotland where she had been brought up. When the Gold and Silver Waltz came to an end, Sir Kenneth was given a card. He was given instructions to contact Lady Purbright and to fix a day for a royal visit to his estate next year when the White Admirals would be flying.

Sir Kenneth consulted Arthur on his return to Newbury. They both realised that the royal visit would involve a lot of preparation and some considerable expense. They had to repair the drive from the house to the woods; it was too far to expect the Royal Person to walk from the house to the wood. Arthur had recently ditched his four by four when he had skidded on the track and Sir Kenneth knew that had put off having the track resurfaced for far too long. Then there was the question of the loggia which was a sort of summerhouse. This was



situated in a clearing, beside a lake, and was surrounded by bramble flowers and honeysuckle. The clearing, known as Patricia's Square, was named after Sir Kenneth's late wife and was a main gathering place for the White Admirals.

Arthur and Sir Kenneth decided that they could serve a picnic lunch there which would maximise the chance of seeing the butterflies. They would need to set up a portable fridge. The Royal Person would expect ice in her whisky and well chilled Chablis with her food. Then there was the question of facilities for washing and the natural functions of life. They had a room with a small sink which could be improved and they would have to acquire a Portaloo and a discrete cubicle in which to house it.

More problematic was what to do if the weather was inclement. The White Admirals would only fly in reasonably good weather. Arthur said that he would spend the next few days looking for eggs from this year's brood. These could be farmed throughout the winter and some of the pupae could be housed in an indoor cage. This cage could contain some butterflies which could be released onto the brambles just before the Royal Person arrived; one or two could be held back to shown inside the Loggia in the case of a dire emergency.

Letters were exchanged with London and a date in the third week of June, just before the Royal Ascot race meeting, was agreed. The preparations went ahead smoothly. The drive was repaired at great cost, a portable fridge and a Portaloo were obtained; the washroom was decorated, and the Loggia was generally spruced up.

Arthur was reasonably successful with the eggs and found nearly a hundred. Some of these he let develop naturally on the honeysuckle around the loggia; although he protected the caterpillars from most predators with black meshed netting. Some he kept indoors and kept an even closer eye on them. In mid-May, he counted fifty large caterpillars on the honeysuckle around the loggia. There was a great deal of this and the pupae, when they were formed, would be well spread out. He had ten indoors which were on the point of pupation.

The weather then became terrible. The caterpillars which were outside became inactive and some of them were diseased and died. Those that were sheltered inside had advanced to the pupal stage and should become butterflies about a week before the royal visit. On the day before the royal visit, Arthur counted twenty nine pupae outside, of which three had started to colour and might possibly emerge. His ten indoor pupae had become butterflies about ten days earlier and were past their best. He put the four best in a cage and kept them



behind the loggia to be shown and released if all else failed. All in all, despite his careful preparations, things weren't looking too good. He took the three most promising of the outdoor pupae inside and subjected them to some gentle heat from an electric fan.

The day dawned fine and sunny. Arthur hoped to see some White Admirals which had not been part of his 'farming' enterprise flying around the lake. None were to be seen. At ten o'clock, he noticed that one of his precious chrysalises had dropped – that is it had shifted downward leaving some clear light between the top of the pupa case and the body of the butterfly. That was hopeful; the butterfly would surely emerge before the Royal person arrived or, better still, while she was with them.



Promptly at twelve noon, the Royal car drew up. The facilities of Sir Kenneth's home were deemed unnecessary and Sir Kenneth boarded the vehicle which was driven up to the turning space at the edge of the woodland. Sir Kenneth, the lady in waiting and the Royal person walked slowly towards the loggia. The sun was streaming into the woods through the tree canopy. It was a perfect day for butterflies to fly. They walked slowly but apart from a few Ringlets, a Speckled Wood and some skippers there were no White Admirals to be seen.

They made their way to the loggia. She glanced briefly at the dark chrysalis which Arthur rather proudly displayed. He was still wondering if he would have to exhibit the rather worn butterflies that were in a cage behind the loggia. He hoped that the sunny weather would bring some new ones out.

The Royal Person enjoyed her iced whisky and settled down to a good lunch of lobster vol-au-vents, smoked salmon sandwiches, fresh strawberry cheesecake all washed down with several glasses of ice cold Chablis. She admired the darkened chrysalis and enquired when it would emerge. Arthur said that you just couldn't tell but hopefully within the next hour.

Conversation flowed; Sir Kenneth was enjoying himself so much that he was in danger of forgetting the main purpose of the royal visit. The Royal person was in the middle of a long anecdote about grouse shooting; when Arthur took his life in his hands and interrupted. The Royal Person looked somewhat put out. "*Madam, I'm really sorry, but our insect is emerging!*"



Arthur moved a branch of honeysuckle, safely standing in a narrow vase, onto the table. A small insect was breaking free from its chrysalis case. Its black and white forewings were clearly visible. After it had emerged from the pupa; it somehow turned its wings inside out. The chestnut and white under wings looked tangled and small. Everyone was silent as the insect gripped the edge of the now empty pupa case and started to pump blood through its veins. The wings grew visibly before their eyes. It looked rather like blowing up a balloon.

Eventually the process was completed, the butterfly hung down with its wings with their brilliantly fresh colours lit up by the sunlight flooding into the loggia. The yellow proboscis unfurled as the butterfly looked for a drop of liquid. It excreted some red substance from its body. Arthur put out his finger; the White Admiral crawled onto it. Arthur transported it to a bramble flower where it started to feed greedily. It was beginning to open its wings and the watching group could again see its black and white forewings. After a few minutes, it moved onto a leaf and sat on the leaf with its wings closed. Then quite suddenly, it flicked them open and displayed its lovely forewings.

Several other White Admirals appeared, as if from nowhere, and one small bramble bush on the water's edge became host to about five of them. The Royal Person got out her camera. There were a succession of flashes and then a disaster. She lost her footing, slipped, and descended with an undignified splash into the edge of the lake! Some slightly unparliamentary language emerged from the royal lips. Chaos ensued. The camera was rescued and put to safety and royalty was lifted out of the mud onto the safety of the bank. She made light of it, but her lady in waiting, who had thought the whole expedition an unnecessary frivolity, was rather cross. A discrete enquiry as to whether her mistress would like to use the facilities of the loggia was brusquely turned down.

The outcome was that half an hour later the Royal Person was sitting up in bed drinking hot whisky toddy wearing a nightgown which had belonged to Sir Kenneth's late wife. The chauffeur was dispatched to



fetch a night case of toiletries, nightwear and the dress that was to be worn tomorrow on the first day of Royal Ascot. For someone aged nearly eighty, the Royal guest coped with the whole episode with remarkable fortitude. She found the whole episode rather amusing and said that she was glad that Sir Kenneth didn't have any crocodiles in his lake.

Sir Kenneth had some steak set aside for several evening meals and a forthcoming dinner party. The lady in waiting graciously volunteered to cook an evening meal. Sir Kenneth found a good bottle of Claret to have with their supper. In the meantime, Sir Kenneth settled down to play Bezique with his guest. He managed to avoid winning and to keep his guest entertained. He discovered that it is surprisingly difficult not to win when the cards are running your way. Fortunately, his opponent obtained a Double Bezique and passed the fifteen hundred point winning post.

After a while, the chauffeur arrived back with some clothes. Royalty did not want to stay in bed; soon she was dressed and sitting in the warm kitchen playing Back Gammon. The stakes were quite high; Sir Kenneth was a very good player but with a few injudicious doubles he ensured that honours were almost even. He was surprised how well his Royal opponent played and how well versed she was in the finer nuances of the game. She then remarked that she wouldn't travel on the procession down the racecourse tomorrow. But that she would go direct to the Royal Box. She remarked that 'she'd better make herself very visible or the papers would think she was at death's door.'

The supper party was a time of reminiscences. Sir Kenneth didn't know much about racing; but he learnt a great deal about the intricacies of breeding and race tactics. For his part, he entertained his distinguished company with accounts of some of his most interesting court cases. There was one particular murder trial of a doctor who had been accused of murdering his wealthy patients who had left him money in their wills. This case had intrigued Sir Kenneth's chief guest. It had taken place a long time ago when Sir Kenneth was first a QC. He had been a supporting barrister for the defence. His guest pressed him as to the justice of the verdict. Sir Kenneth said he truly wasn't sure; but that if he had to bet upon it, he would have pronounced the man guilty. The circumstantial evidence was great; but hard facts were difficult to obtain. The distinguished doctor certainly wasn't guilty 'beyond reasonable doubt'.

They all had an early night. The Royal party decided they needed to leave for Ascot by twelve o'clock the next morning. The Royal Person



who was feeling very sprightly had a large cooked breakfast and then insisted on revisiting the White Admirals. She was now dressed in a powder blue hat and her finest blue Ascot dress. She did however sport a pair of green Wellingtons for the short walk in the woodland.

On the way, to the loggia they saw a newly emerged Silver-washed Fritillary basking on some ferns. It displayed both its orange and black forewings and its lovely green, silver and pink underside. Moments later, they saw something very special. Arthur Harrod was on hand and pointed out a grey-green butterfly feeding on some bramble.

'That Madam' he said 'is the rare Valezina form of the female Silver-washed Fritillaries. Some years we get about ten per cent of the females which take that beautiful colouration. No one is sure why it happens, but it is caused by a recessive gene which is present in many populations of the butterfly in the South of England.'



The Royal Person remarked that *'a working knowledge of genetics was also very useful when breeding racehorses'*. More photographs were taken and then the party walked on towards the lake. They all kept well away from the water. Butterflies were flying in profusion.

Arthur pointed out some pirouetting in the sky in their courtship flight. The lady in waiting produced the royal racing glasses and the distinguished visitor had a wonderful view through her powerful binoculars. She even identified the oak tree in which the courting couple had taken their rest.

A number of White Admirals were feeding on the bramble flowers. More photographs were taken. A brief snack and a glass of Chablis were consumed in the loggia. The specially provided washing facilities were again left unused. Then it was time to go. The Lady in waiting, discretely, handed Arthur an envelope. It contained a handsome cash donation. Fond farewells were exchanged and the royal party set off for Ascot. They were going to arrive quietly and miss the procession up the royal mile.



When it was all over, Sir Kenneth and Arthur totted up the expenses for the visit. Including the making up of the drive there was little change out of £5000; but Sir Kenneth proclaimed that it all been a capital experience and well worthwhile. Arthur offered his tip to offset the expenses but Sir Kenneth would have none of it. 'The drive needed doing anyway. Who knows I may be glad of the lavatory facility in the loggia. Anyway without your forethought we would have had nothing to show her yesterday. By the way, I'm glad you interrupted her interminable shooting story – it would have been a shame to miss the most dramatic moment of the visit.'

That Christmas, Sir Kenneth received a hand written card. Instead of a Christmas scene, it contained a fine photo of a White Admiral with its wings fully open. It was inscribed '*In memory of a delightful June day amongst your butterflies and of a slightly unwelcome bath!*' It was signed personally.





Macro photography on a budget

by Andrew Smith

15 Alder Drive, Chelmsford, Essex CM2 9EY.

Email: andsmith63@gmail.com

For many years macro photography has fascinated me – especially the close up detail of insect macro photography. When looking at an insect ‘up close’ you see things like hairs and scales you would not normally see with the naked eye.

I have always enjoyed photography as a hobby from way back when I was 14 years old and developing my own prints in my parents’ attic. (To this day, I don’t think my mother realised why the sink turned a shade of black: it was a shock for me too, as I did not know what these chemicals could do to stainless steel when poured away!)

As the distractions of adulthood intervened, my hobby was idle for some years until I had the opportunity to purchase a camera and then with Photoshop it was revived once more (and no unexplained stains in the sink).

The camera I use is a Panasonic-Lumix FZ18 (a bridge camera, which is basically as it says, a bridge between a ‘point and shoot’ and a Digital SLR). This camera has an excellent 18x zoom lens and a macro facility built in. Unfortunately to take any macro shots with this macro



Figure 1. Raynox DCR-250 Macro lens with universal snap-on mount.



setting means the lens has to be almost on top of the subject and sometimes almost squashing it. Being this close also prevents the use of flash as the lens casts a shadow over the subject.

After some research, I discovered Raynox lenses, which fit most bridge and DSLR cameras. They have two macro lenses, DCR-150 and the DCR-250. They both include a snap-on universal mount suitable for 52mm to 67mm filter size (Figure 1). The DCR-150 has a wider angle so less magnification. I chose the DCR-250 because I wanted to get as close as possible. I purchased mine from Amazon (at time of writing this costs £42), I also had to buy an adaptor tube for my camera (to allow for the zoom lens to travel behind the clipped on Raynox lens). With the adaptor and lens fitted to the front (Figure 2) you can then use the maximum zoom to achieve the closest macro available.



Figure 2. Panasonic Lumix FZ18 fitted with lens adaptor with snap-on mount with Raynox DCR-250 fitted to front.

With time and practice you can quite quickly achieve great macro shots from a distance of about 15cm. By experimenting, I discovered it was best to shoot in aperture priority using the smallest aperture possible, which is f8 on my camera, to enable the best depth of field. I also realised I needed to support the camera as it very easily went out



of focus as I could not hold it steady enough. I first thought a tripod would be the answer but came to the conclusion a monopod would allow me to rock back and forth to get the subject roughly in focus, and then let the auto focus take over. I also use flash to gain a faster shutter speed and therefore a sharper image (Figure 3). Another advantage of using flash with this depth of field is that the background can almost go black allowing for the subject to really stand out.

I have not only achieved great results with insects (see cover picture of this *Bulletin* – an Elephant Hawkmoth caterpillar taken on fuschia). I have also got a good shot of an eyeball and needle and thread (Figure 4).



Figure 3. Two flies in cop on a leaf.



Figure 4. Macro shot of eye of needle with thread.

To see more of my macro images please see my macro set at <http://www.flickr.com/photos/andcity63/sets/72157624762321324/> or alternatively search images for Raynox lenses and view what other people have achieved with a variety of different cameras.

These well-made lenses with high index optical glass elements produce rich and razor sharp image and at a fraction of the price of dedicated macro lenses and offer a superb introduction to the world of macro photography. Therefore, I wholeheartedly recommend that if you want to attempt macro photography, this is a very inexpensive way to start.





Request for help – Calliphoridae (Diptera)

My name is Helen Godfrey and I am a Ph.D student at the University of Central Lancashire in Preston. I am part of the School of Forensic and Investigative Sciences – Forensic Genetics Group. My research aims to identify UK Calliphoridae species (Diptera) through the use of genetics.

As several Calliphoridae species are the first to be attracted to a decomposing body, their presence and age at a crime scene can be used in forensic investigations to estimate the post-mortem interval. The main problem in this field is the difficulty in identifying species using morphological characteristics. Closely related species, fragmented samples and egg and larval specimens are very difficult to identify. It is hoped that the use of genetics to identify these species will help to overcome these issues.

My project involves conducting DNA sequencing experiments in order to find regions which differ between species and can be used for identification purposes. So far I have collected data from nine different regions, some of which look very promising. The main problem I have, is that my sample set is quite small and thus I have a very limited idea of the true level of genetic variation that exists between species.

I am asking members for help and if they would be willingly to collect specimens this summer to form part of my sample set. If required, I can provide you with collection packs. All samples, (not just Calliphoridae species) will be gratefully received.

Helen Godfrey (Email: HGodfrey@uclan.ac.uk) DB254 – Darwin Building, School of Forensic and Investigative Sciences, University of Central Lancashire, Preston, PR1 2HE Tel: (+44) 01772 894370.



BOOK REVIEWS

The Staphylinidae (rove beetles) of Britain and Ireland, Parts 7 & 8: Oxyporinae, Steninae, Euaesthetinae, Pseudopsinae, Paederinae, Staphylininae

by Derek A. Lott and Roy Anderson. Handbooks for the Identification of British Insects Vol 12 Part 7, published for the Royal Entomological Society by the Field Studies Council, 2011. Colour plates by James Turner. 340pp. £49.00. ISBN 978-0-901546-92-0. [NB AES members are eligible for a discount on RES Handbooks].

This book is the second volume published so far on rove beetles in the RES Handbooks series, the intended aim being to bring taxonomic clarity to the Staphylinidae alongside a means of identifying to species level all of the more than 1000 species in this family to be found breeding in Britain, Ireland and the Isle of Man.

The Staphylinidae are a successful group of beetles, immediately recognisable from their short elytra and seemingly long bodies, with over 55,000 known species worldwide. The various species are adapted to habitats ranging from gardens and woodlands to wetlands and riversides, according to where their food and other habitat requirements may be found; these could include dung, fungi or, in the case of the predatory species, small insects such as mites and springtails. Many rove beetles occur as adults throughout the year and some have specialised life histories, needing to interact with other organisms to complete their life cycles. Their body form allows them to weave through low vegetation, unlike the more robust ground beetles (Carabidae) which tend to push their way through the undergrowth. Thus there is plenty to interest the amateur in this group of beetles of diverse habitats and life histories.

It is probably because of the large number of species and some confusion in the past surrounding their taxonomy that the rove beetles have been regarded as unsuited to beginners wishing to study beetles. However, even compared with the ground beetles (supposedly a good group for beginners) they are in many respects easier to identify to species level, partly because the evolution of their shortened elytra has resulted in hardened exposed abdominal tergites which bear telltale differentiating characteristics. Having said that, in order to do well with this group you would need to have the necessary kit, including a binocular microscope that magnifies at least down to 40x, and you would need to get to know their aedeagi and abdominal sternites fairly intimately! Examination of the male genitalia is necessary to distinguish between the more closely related species.

The main part of this handbook provides detailed descriptions of each species within the six subfamilies, focusing as might be expected on their morphology and how to distinguish them from similar species. There are brief notes on habitat and distribution for each species, and of course species keys within each genus and subgenus; these appear to be straightforward to use.



There is a brief summary of the characteristics of the group at the beginning of the book, including a diagram showing aspects of the dorsal and ventral gross morphology referred to in the keys, which are supplemented at the end of the book by 31 pages of 190 colour plates prepared by James Turner of the National Museum of Wales. There is also a little information on collection and curation, though of course *A Coleopterist's Handbook* would be a more comprehensive source of information on those aspects.

The back cover and the abstract of this book both state that five subfamilies of rove beetles are covered, whereas I counted six! That minor mishap notwithstanding, if you would like to get stuck into a group of beetles of challenging species richness and diverse habitats which are identifiable with the use of keys and a binocular microscope, this could be the book for you. And of course, there are the 13 other subfamilies of rove beetles not covered in this volume to move on to after that!

Reference

A Coleopterist's Handbook (4th Edition) by J. Cooter and M.V.L. Barclay. Amateur Entomologists' Society, 2006.

Dafydd Lewis

Wasps of Surrey

by David W. Baldock, foreword by Mike Edwards, published by Surrey Wildlife Trust, 2010. Hardback format, 336 pp., 48 colour plates, 205 distribution maps. £18.00 (plus postage & packing: currently £2.80). ISBN 978-0-9556188-2-6. Available in hardback format from the online shop: <http://www.surreywildlifegifts.org.uk/collections/frontpage/products/wasps-of-surrey> or from Surrey Wildlife Trust, School Lane, Pirbright, Woking, Surrey, GU24 0JN, Tel: 01483 795440.

Wasps of Surrey is the twelfth volume in an ongoing series describing the wildlife of the county. Previous works dealt with Butterflies (1995), Dragonflies (1996), Larger Moths (1997), Hoverflies (1998), Grasshoppers & Crickets (1999), Ladybirds (2000), Amphibians & Reptiles (2001), Shieldbugs (2003), Ants (2005), Water Bugs and Water Beetles (2007) and Bees (2008). In 2005 the Trust launched a series of County Checklists, the first of which dealt with beetles.

Wasps of Surrey is the result of a 25 year survey and provides an important snapshot of the status of the county's species; information which will prove invaluable when measuring the success of future conservation efforts. The author is a lifelong resident of Surrey and has an extensive knowledge of the natural history of the county. He writes regularly on bees and wasps in *British Wildlife* and is a council member of BWARS (Bees, Wasps and Ants Recording Scheme). He is also a keen botanist and birdwatcher.



Surrey is one of the richest counties in Britain for wasps, supporting almost 90% of the British fauna. This amazing biodiversity is mainly due to Surrey's special landscape as, with the exception of coastal habitats, the county still retains extensive areas of ancient woodland, lowland heath and calcareous grassland. The county boundary is that defined by H.C. Watson in 1852, which differs markedly from modern administrative Surrey and includes the largely urban south-western quarter of Greater London.

In spite of being one of the most varied and colourful groups of insects; many species of wasps are often overlooked and frequently misunderstood. Indeed, with the exception of the social wasps, the vast majority of Britain's species go largely unnoticed. In this volume the world of social and solitary wasps is explored in detail, revealing beautifully adapted predators, parasites and mimics of colour and form that will appeal to both the amateur and professional naturalist alike.

The book follows a similar format to *Bees of Surrey* by the same author. A Foreword by Mike Edwards is followed by a list of contents, a preface, and acknowledgements with a list of recorders. The Introduction consists of 101 pages packed with useful information, beginning with a summary of the geology and climate. Other headings include "What is a wasp?", "Wasp conservation and biodiversity", "Gardening for wasps" and "Key to families of wasps", to name but a few of the 21 subject headings in this section.

The Species Accounts fill almost one third of the book and cover all 242 species recorded from Surrey, including 34 species of very small poorly recorded wasps in the families Dryinidae, Embolemidae and Bethyridae. Each account follows a similar format, beginning with the National Status and the Status in Surrey, followed by useful distinguishing features, notes on ecology and a detailed list of past and present occurrences in the county. The accounts vary in length from between half a page and two pages per species. There is a clear distribution map for almost every species showing occurrences by tetrad (2 km) squares. There are 48 colour plates illustrating 112 species with superb photographs. At the end of the book there are five appendices: "Gazetteer of sites", "References", "Glossary and acronyms" and "Index of plants", and an index.

Although this book is directed towards the Surrey fauna it is also likely to be of considerable interest to anyone fascinated by wasps. The marvellous photographs, which also include several wasp mimics and parasites, add considerably to its value and it is highly recommended that every entomologist should find a space for it on the bookshelf.

Peter Hodge (5335)

Dipterists Handbook (Second Edition) edited by Peter Chandler (with contributions by 42 other authors)

This Handbook provides a work of reference for everyone interested in the study of flies, both beginners and experienced dipterists.

As in the first edition great emphasis has been placed on the habitats and biological associations of flies. Among the authors are specialists in each field of study so it has again been possible to bring together a summary of the latest knowledge of all aspects of the biology of Diptera at the species level.

There are additional subjects not covered in the first edition including Forensic entomology and an explanation of the classification of Diptera and a bibliography of key works for the identification of both adults and larvae. Some specific habitat associations are covered in greater detail to reflect increased ecological knowledge of flies and the greater significance now being placed on some habitats in the conservation of Diptera. 525 pages with 32 colour plates and 45 text figures. **£ 52.00**

Members price £ 44.00

British Butterflies throughout the year by Peter May

This new book from the AES describes the adults of different species of British butterflies, according to the time of year they appear on the wing. Nearly all the 60 British species are illustrated. Focussing on encouraging an interest in entomology among the young, and the young at heart, there is a helpful calendar of flight times and a useful checklist to help you keep track of your observations. **£ 5.00**

Members price £ 3.80

Preparing and maintaining a collection of Butterflies and Moths

by P. May and M. White. A practical manual detailing the various methods used to prepare specimens for a collection, from killing methods, setting the specimens and repairing damaged ones, to storage and preservation, including pest prevention and cure. 21 pages, 4 figures and 5 plates. (2006) **£4.85**

Members price £3.65

The Hymenopterist's Handbook by Dr. C. Betts *et. al.*

2nd edition dealing with the history of their families, classification and structures; natural history; studying, collecting, breeding, attracting and preserving Hymenoptera. Appendices include keys to the families. 214 pages with numerous tables, keys and figures (1986) **£ 11.45**

Members price £ 8.60

Revised Flight Tables for the Hymenoptera

Revised flight tables for the Hymenoptera giving, wherever possible, times, location, flower visits and some indication of distribution and abundance. 24 pages (1988) **£ 3.10**

Members price £ 2.35

A Coleopterist's Handbook

Edited by J.Cooter & M.V.L.Barclay The *Coleopterist's Handbook*, is now available as a fully revised and expanded fourth edition. Nomenclature has been brought inline with

current use, collecting/curatorial methods reflect best practice and plant/beetle and beetle/plant lists are included together. Recent additions to the British fauna, modern and traditional techniques are included. All advice and comment given in the book is based upon collective years of practical experience of both curatorial methods and field craft; beetle family chapters have each been written by an internationally recognised authority. 496 pages including 32 colour plates. **£ 54.00**

Members price £ 39.00

Host plants of British Beetles: A List of Recorded Associations

A list of a wide range of plants, in alphabetical order, together with the beetle species that have been recorded as being associated with them. 24 pages (1992) **£ 3.10**

Members price £ 2.35

A Silkmoth Rearer's Handbook by B.O.C. Gardiner

SPECIAL OFFER PRICE £ 7.70

No further discounted price available

Rearing and Studying Stick and Leaf-Insects by P. D. Brock

Specifically intended for beginners, although it is also suitable for experienced Phasmid enthusiasts, it is one of the few guides to rearing that features the majority of the culture stocks available, 22 species in detail. The informative text is complimented by 8 colour plates, 14 black and white plates and 29 figures. (New edition, 2003) **£ 11.20**

Members price £ 8.20

The Study of Stoneflies, Mayflies and Caddisflies by T.T. Macan

A comprehensive guide to collecting and studying the biology and ecology of these aquatic insects. 44 pages, 10 figures and bibliography (1982) **£ 4.20**

Members price £ 3.15

Breeding the British Butterflies by P.W. Cribb

A practical handbook covering all aspects of butterfly breeding, including general techniques, equipment and hints on how to breed each of the British species. 60 pages, 6 figures, 5 plates. Revised (2001) **£ 5.20**

Members price £ 3.85

Practical Hints for the Field Lepidopterist by J.W. Tutt

Written at the turn of the century, this book has been reprinted because of its scarcity and value to students of Lepidoptera. It gives a complete month by month guide to which species and stages of macros and micros to look for and how to find them. Also contains a biological account of the early stages and how to keep, rear, photograph and describe them. 422 pages. Hardback. (Reprinted 1994). **£ 24.00**

Members price £ 18.30

An index to the modern names for use with J.W. Tutt's

Practical Hints for the Field Lepidopterist by B.O.C. Gardiner

A valuable cross-reference guide between the scientific and English names used in the early 1900s and the present time. **£ 4.70**

Members price £3.50



AES Membership Rates 2011

Membership of the Society runs from 1st January to 31st December each year. New members will receive all publications published during the year of enrolment subject to availability, except for those joining on or after 1st October.

Any member joining on or after 1st October will be deemed to have joined for the following year unless he or she specifically requests membership for the current year. If such a request is made, the publications already published that year will be sent with the enrolment confirmation letter and the remaining ones will be sent when they are published. A further membership subscription will be necessary for the following year.

If you have any queries about membership please contact us via the website, www.amentsoc.org or PO Box 8774, London SW7 5ZG

Individual Adult Membership

Membership sub-category	UK	Overseas
<i>Bulletin only</i>	£20.00	£25.00
<i>Entomologist's Record only</i>	£25.00	£30.00
<i>Bug Club Magazine only</i>	£20.00	£25.00

Individual Bug Club / Junior Membership

Membership sub-category	UK	Overseas
Junior under-18 (<i>Bug Club Magazine only</i>)	£12.00	£17.00
Junior aged 13-17 (<i>Bulletin only</i>)	£12.00	£17.00

Family or Combined Membership

Membership sub-category	UK	Overseas
<i>Bulletin & Entomologist's Record</i>	£40.00	£45.00
<i>Bulletin & Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record & Bug Club Magazine</i>	£35.00	£40.00
<i>Bulletin, Entomologist's Record & Bug Club Magazine</i>	£48.00	£53.00

Associate / Institutional Membership

Membership sub-category	UK	Overseas
<i>Bulletin only</i>	£20.00	£25.00
<i>Entomologist's Record only</i>	£50.00	£55.00
<i>Bug Club Magazine only</i>	£20.00	£25.00
<i>Bulletin & Entomologist's Record</i>	£65.00	£70.00
<i>Bulletin & Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record & Bug Club Magazine</i>	£65.00	£70.00
<i>Bulletin, Entomologist's Record & Bug Club Magazine</i>	£75.00	£80.00

The Amateur Entomologists' Society

PO Box 8774, London SW7 5ZG

www.amentsoc.org

The
Bulletin
of the Amateur Entomologists' Society

Volume 70 • Number 496

June 2011

CONTENTS

Editorial	83
Society Matters	85
AES Annual Report	87
Haines, D. & H. "Rare" Cyprus butterflies common in the North	97
Wootton, R., Pitts, K. and Field, L. The Bug Club – a brief history	103
Keen, D. Letter from Spain – 11th in a series – local Mantids, a further update and corrections	109
Woolmer, J. Sir Kenneth's White Admiral	112
Smith, A. Macro photography on a budget	119
Request for help – Calliphoridae (Diptera)	122
Book Reviews	
<i>The Staphylinidae (rove beetles) of Britain and Ireland, Parts 7 & 8: Oxyporinae, Steninae, Euaesthetinae, Pseudopsinae, Paederinae, Staphylininae</i>	123
<i>Wasps of Surrey</i>	124

ES 36 A

The Bulletin



of the Amateur Entomologists' Society

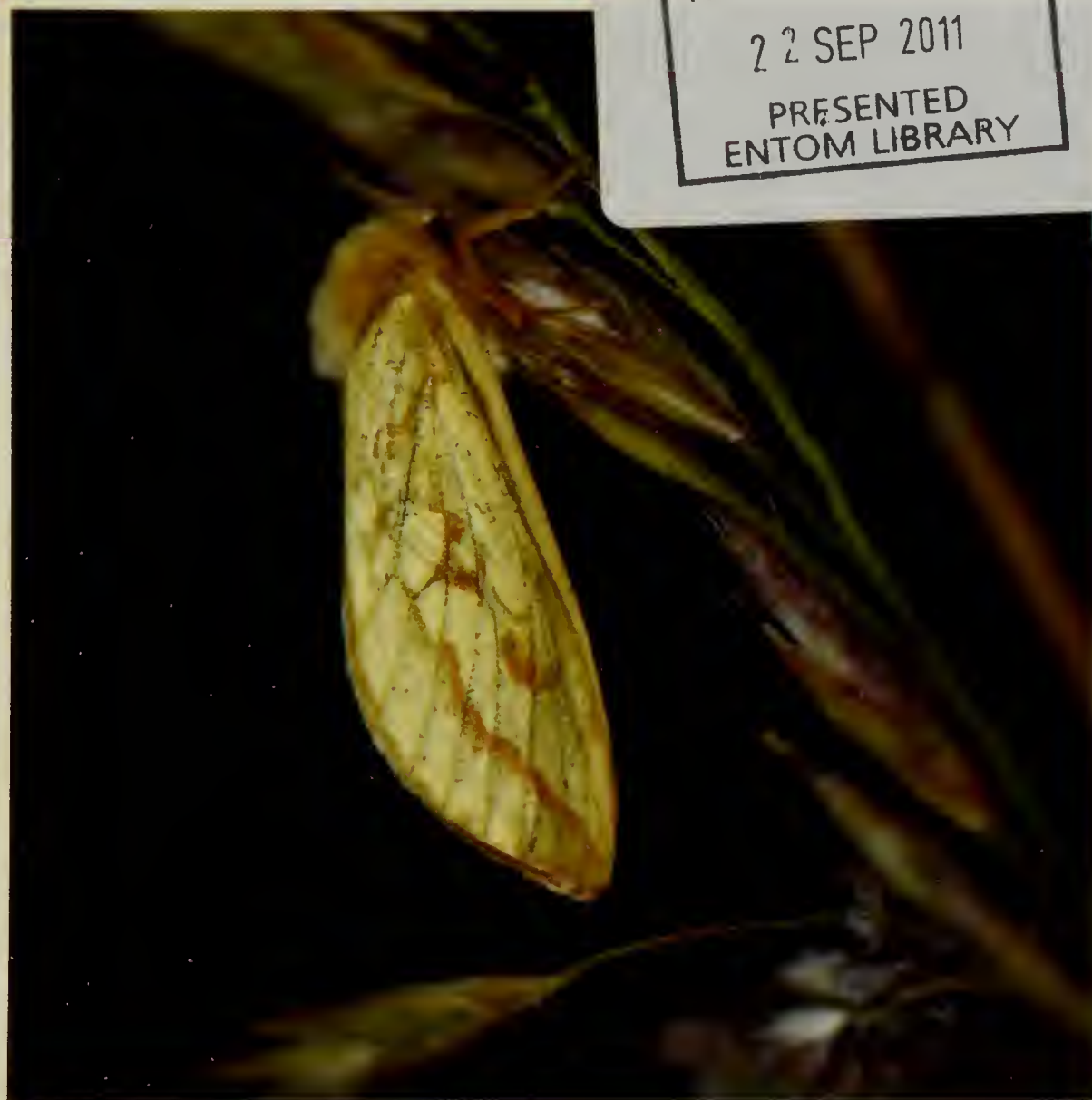
Volume 70 • Number 497

August 2011

NATURAL
HISTORY MUSEUM

22 SEP 2011

PRESENTED
ENTOM LIBRARY





000174481



Founded in 1935

The AES • P.O. Box 8774 • London • SW7 5ZG

www.amentsoc.org

Email: contact@amentsoc.org • bug-club@amentsoc.org

Officers of the Society

President: Peter Hodge

Secretary: Dafydd Lewis (secretary@amentsoc.org)

Treasurer: Peter May (treasurer@amentsoc.org)

Registrar: Dafydd Lewis (registrar@amentsoc.org)

Bulletin Editor: Phil Wilkins/Paul Sokoloff (bulletin-submission@amentsoc.org)

General Editor: Jacqueline Ruffle

Advertising Secretary: Peter Hodge (advertising@amentsoc.org)

Exhibition Secretary: Wayne Jarvis (exhibition@amentsoc.org)

Youth Secretary: Kieren Pitts

Conservation Secretary: David Lonsdale

Webmaster: Kieren Pitts

ICN Editor: David Lonsdale (icn@amentsoc.org)

Wants & Exchange: Peter May (newsletter-editor@amentsoc.org)

THE AES WORKS TO PROMOTE AND DISSEMINATE ENTOMOLOGICAL KNOWLEDGE AND TO
ENCOURAGE AN INTEREST IN ENTOMOLOGY AMONG THE YOUNGER GENERATION.

BULLETIN ADVERTISING RATES:

Advertising in the AES *Bulletin* is a cost effective way of reaching all AES members and many others who benefit from institutional subscriptions.

Full page £75 for each advert or £375 for six adverts in the same year.

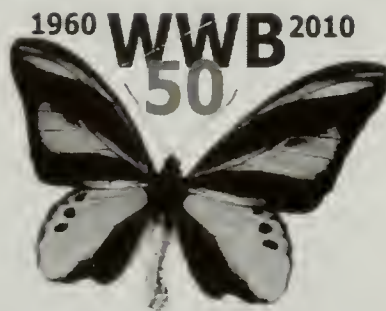
Half page £50 for each advert or £250 for six adverts in the same year.

Quarter page £30 for each advert or £150 for six adverts in the same year.

NOTICE

It is to be distinctly understood that all views, opinions, or theories, expressed in the pages of this Journal are solely those of the author(s) concerned. All announcements of meetings, financial grants offered or sought, requests for help or information, are accepted as bona fide. Neither the Editor, the Officers and Council of the Society, nor its Trustees, can be held responsible for any loss, embarrassment or injury that might be sustained by reliance thereon.

Worldwide Butterflies



Watch the wwb website
www.wwb.co.uk
for new developments

Light now
available
alone or
with the
**Moonlander
Moth Trap**

Moonlander Moth trap

Folds totally flat and is
contained in a
convenient slim
shoulder bag.
Very lightweight.

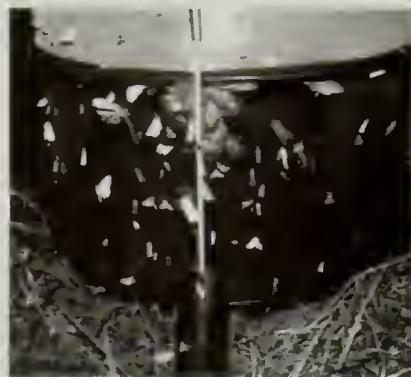
**The Moonlander turns the
principle of moth trapping
upside down! Moths enter
from the bottom and cannot
escape through the top.
Works as sheet and trap
combined.**

Better than traditional egg
boxes, moths prefer the new
**reticulated foam moth
shelters** and cone.

The new Goodden Light 12v for use in remote areas

By studying the light output from MV, Robert Goodden
has developed this sophisticated portable unit with
aspects in common with MV, using so little power that it
runs all night on a 7.5Ah battery. It attracts insects much
better than actinic lights, even powerful ones requiring
heavy batteries. **Rainproof and safe.** The photoswitch
puts the light on and off automatically.

See **www.wwb.co.uk** for
prices and more.



Both trap and light are total innovations by Robert Goodden.
They are tried and tested in Europe and the tropics.
In good conditions the results are spectacular.

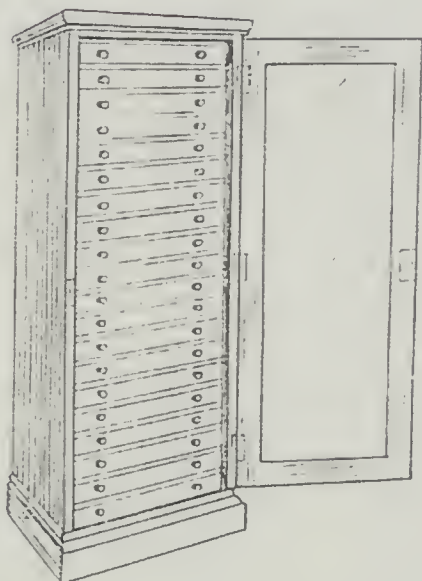
Worldwide Butterflies website offers **Livestock and Equipment for
breeding and study. Specimens for specialist collectors will be added as
available.** The system enables you to see exactly what is currently available as
the season changes. From time to time there are special **Sale Offers** of
equipment, books, livestock and specimens - an ever changing situation.

www.wwb.co.uk Add it to your **Favorites** - check it regularly.

ATROPOS ANTIQUES*

PURVEYORS OF FINE COLLECTOR'S CABINETS

*Many of you will have met us at the AES London Fair
where we regularly show entomological cabinets for sale*



- We are specialist dealers in fine collector's cabinets.
- We can offer a choice of at least 30 cabinets, varying in purpose, construction, quality and price.
- We can supply both restored and un-restored cabinets and will undertake to restore and paper cabinets for clients.
- We are always interested in the purchase or exchange of cabinets, with or without a collection.
- Callers to our showrooms are always welcome by appointment.
- We offer a specialist collection and delivery service throughout the UK and have full expertise in the safe transportation of cabinets and collections.

We now have a dedicated cabinet showroom in Hartland, North Devon, and are happy to receive visitors to view the stock of over sixty cabinets including all the famous makers names. Please telephone or e-mail if you wish to call. Hartland is famous for it's coastline and dramatic scenery and was one of the last known haunts of the Large Blue.

We are very keen to buy whole insect collections and collecting paraphernalia ancient or modern. Please contact George Morgan by telephone or e-mail.

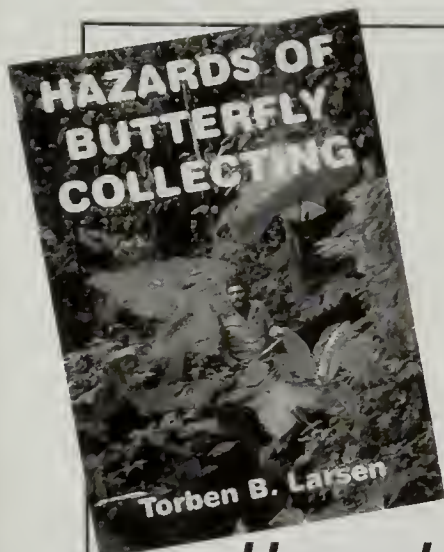
George Morgan

97, West Street, Hartland, N. Devon EX39 6BQ

T: 01237-441205/984 M: 07973 302190

E-mail: george@atropos.wanadoo.co.uk

* We are an independent dealership of 30 years standing and have no association with any similarly named business.



SPECIAL OFFER

£7.50 each

(inc. UK p&p)

£9.50 each (overseas)



Hazards of Butterfly Collecting

by Torben B. Larsen

Rearing Stick and Leaf Insects

by Ronald N. Baxter

ORDER YOUR COPY NOW FROM

Cravitz Printing Company Limited, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Tel: (01277) 224610 • Fax: (01277) 262815 • E-mail: CravitzPrinting@btconnect.com

Bulletin Cover



This month's cover picture shows a female of the Ghost Moth, *Hepialus humuli*, one of the largest European members of the primitive group of Swift Moths. Although the wingspan may exceed 50mm, the moth is technically a "micro". The Ghost Moth has very short antennae, no functional mouthparts – so the adult cannot feed – and the wings are coupled together by a folded structure called a jugum – rather than the bristle-like frenulum seen in larger moths.

The males have pure white wings and fly at dusk, often in groups, hovering over the ground, gently rising and falling in an attempt to attract females. The moths were apparently very common in churchyards and this flight display prompted Moses Harris (*Exposition of English Insects*, 1782) to name it "The Ghost". The female scatters eggs whilst in flight and Harris charmingly describes this habit "*the female, in laying, discharges [eggs] from the ovarie with great force, as a pellet discharged from a pop-gun*". The larva is subterranean, feeding on the roots of grasses and other plants.

Photographed by Paul Sokoloff in East Kent.



ARE YOU MISSING OUT? THE ENTOMOLOGIST'S RECORD and Journal of Variation

Publishes notes, observations, articles and reviews, mainly on the Lepidoptera and Coleoptera of the British Isles and Europe.

Founded in 1890 by J. W. Tutt, and still going strong, we publish six issues a year – alternating with the *AES Bulletin*. This means there is now a first class entomological journal available every month of the year!

Our subscription price is £25 per year. If you would like to see a specimen copy, please send your name and address, and a couple of second class stamps to cover postage to:

The Editor, 14 West Road, Bishops Stortford, Hertfordshire CM23 2QP.

Write now! You never know what you could be missing.

The Entomologist's Record is a publication of the Amateur Entomologists' Society.
To ensure high standards of production we use Cravitz Printing Company.



Ian Johnson Natural History Books

(Pemberley Books)

Specialist in *Entomology* and related subjects
Also *Zoology, Ornithology, Botany* etc.

- CATALOGUES – Second-hand, Antiquarian and New books – free catalogues available on request.
- SPECIALIST BOOKSHOP at Richings Park, Iver, just to the West of London – easy to reach by car or train. Visitors are welcome to visit and view our stock, but please telephone first to confirm opening times.
 - * *By car:* only 10 minutes drive from the M25 via the M4 (Junction 5), or M40 (Junction 1). 15 minutes from Heathrow Airport.
 - * *By train:* 20 minutes from London Paddington to Iver Station on the Paddington-Slough Thames Trains service (2 trains every hour). We are 1 minute's walk from Iver Station.
- WEBSITE – view our stock on our website: www.pemberleybooks.com.
- BOOKS BOUGHT – We are always interested in purchasing books in our specialist field, particularly antiquarian, academic and scholarly works on insects and other invertebrates.

18 BATHURST WALK, RICHINGS PARK, IVER, BUCKS SL0 9AZ
Tel: 01753 631114 / Fax: 01753 631115 • e-mail: ian.johnson@pemberleybooks.com

The
Bulletin
of the Amateur Entomologists' Society

NATURAL
HISTORY MUSEUM

22 SEP 2011

PRESENTED
ENTOM LIBRARY

Volume 70 • Number 497

August 2011

Editorial

It is supposed to be high summer at present. However, here in Norfolk, it is the rainiest it has been all year. Though when the sun does poke out between the clouds, the insects do manage to show themselves. I have even recorded Purple Hairstreaks *Neozephyrus quercus* in my garden this year. This was not a species I was expecting, though there are several mature oak trees nearby. According to Butterfly Conservation, 2010 was a bad year for Meadow Brown *Maniola jurtina*. Locally the trend seems to be reversed this year. I have seen large numbers this summer.

On the subject of summer, as well as butterflies, hoverflies are emblematic of the season. It is interesting to see that Roger Morris, the Hoverfly Recording Scheme organiser is keen to develop a 'Big Hoverfly Watch' similar to the RSPB's Big Garden Birdwatch. In his words:

"The idea is to pilot the concept in 2012 to develop a network of recorders who would visit their favourite site on two separate days once in each of two pre-arranged weeks and to develop a list for that site for that date. There will obviously be differences in the skill-base of recorders but there is scope for distilling the differences between complete and incomplete lists. Once we have a big group contributing, any differences in recording skills are likely to be evened out by the size of the dataset.

"We eventually hope to develop a network of recorders across the whole of the UK, but in this first year a foundation group of maybe 50 participants would be a reasonable indication of success. My feeling is that we should encourage all ability groups and sort the data according to criteria that separate experienced recorders from novices."

Roger can be contacted via email: roger.morris@dsl.pipex.com

Moving seamlessly on, remaining with hoverflies, you may notice a new idea for the *Bulletin* in this issue. It is a 'Species Focus'. This is aimed at those who may know something of a species but wish to know more. Please let me know what you think. If it is popular we could print more in the future. Please contact the *Bulletin* at the usual



addresses with ideas for future species, or even contributions to the series!

The Annual Exhibition is fast approaching. Hopefully many of you will be able to attend. It would be great if a large proportion of members were able to bring along exhibits – there are prizes for the best. Even if you do not win a prize, an exhibit is a superb focus for discussion and new contacts and friends can be made in this way.

Phil Wilkins

SOCIETY MATTERS

SOCIETY ANNOUNCEMENTS HAVE NOW TRANSFERRED TO THE
NEW MONTHLY AES NEWSLETTER.

If you have not yet signed up to receive your Newsletter please see the yellow flyer that accompanies this mailing to see how to go about it.

The Newsletter is an inherent part of your membership. Please make sure you sign up to receive it.

AES EVENTS

Saturday 10th September

Annual AES & Bug Club Open Day at the Oxford University Museum of Natural History

Parks Road, Oxford, OX1 3PW.

This will follow the same informal pattern as last year, with live insect handling, displays, binocular microscopes, a bug hunt in the University Parks and a tour of the Hope Entomological Collections. Museum curation staff will be on hand to advise on any entomological questions you may have. There is no need to book but further details are available from secretary@amentsoc.org.

Saturday 1st October

Annual AES Exhibition and Insect Fair Kempton Park Racecourse, Middlesex

Further details of the Exhibition may be found elsewhere in this issue.

Full information on these AES and other events is included in the AES Newsletter. Events information may also be accessed online at www.amentsoc.org/events.



EVENTS IN 2012

Saturday 11th February 2012

Young Entomologist's Day @ Oxford University

April 2012 (date to be confirmed)

AES Members' Day & AGM

Manchester University Museum of Natural History

16th – 19th August 2012

AES & Bug Club Residential Weekend

Wytham Woods Nature Reserve, Oxfordshire

Further details of these events will appear in the AES Newsletter and on the AES website (www.amentsoc.org)

YOUR AES MEMBERSHIP

If you have any questions about your AES membership at any time please contact the Registrar:

via email: registrar@amentsoc.org, or by post:

AES Registrar, PO Box 8774, London SW7 5ZG





Letter from Spain – 12th in a series – Drilid larvae identified

by David Keen (3309L)

Calle Casto Bancalero 11, 41650 El Saucejo, Sevilla, Spain

To begin this article I must refer you to the Post Script that concludes my "Letter from Spain – 9th in a series – Drilid larvae found locally" which was published in the *Bulletin* for August 2010. To recap, on 8 June 2010 I found two more larvae on a pavement in the middle of our village. These were placed in separate plastic boxes with a selection of 'round' *Helix* type snails. The plastic boxes were lined with sheets of kitchen tissues and I was hoping, at that stage, that I would be able to rear the larvae through to the adult beetle stage.

So, what happened to these larvae? They actually behaved somewhat differently so, for ease of reference, I will refer to them as 'larva 1' and 'larva 2'. Larva 1 was in a box containing three smallish snails and on 8 June it approached each snail in turn, turned each shell over onto its back and inspected the snail within but did not enter any of the shells. The larva spent the following day, 9 June, hiding in a fold of the tissue paper on the floor of the box. As far as I could tell, it did not move and I wondered if it would eat.

On the following morning I went to the end of our street and found two larger snails and these were placed in the box. Shortly after this, the larva emerged from its hiding place, crawled to one of the new snails and climbed onto its back. Gripping the back of the snail shell with its rear end, the larva pushed the snail along the tissue paper on the bottom of the box until it came to the edge of one sheet of tissue. It then proceeded to push the snail under the tissue and a little later it entered the snail shell, biting the snail as it did so. Over the next two or three days it disappeared inside the shell as it ate its way through the snail.

At this point I went to England for five days and, on my return on 22 June, I saw that a quantity of a brownish liquid had been expelled from the shell during my absence. Nothing else seemed to happen to this larva except that by 17 July it had appeared to shed its skin and used the moult to plug the entrance to the snail shell. From the literature it would seem that the adult beetles emerge around September and as no beetle had appeared by 15 October I assumed the worse and inspected the snail shell. I very carefully cut away the snail shell and removed the 'skin' of the larva only to find that it was actually the larva itself



Figure 1. Drilid larva found in the village of La Mezquitilla, Spain in June 2011.

Photo: Fran Villena Sanchez



Figure 2. Dead drilid larva inside the snail shell.

Photo: Fran Villena Sanchez



and that it had died. I replaced the dead larva inside the shell and mounted the shell on card – see Figure 2.

Turning to “larva 2”, it inspected a snail on 8 June and climbed onto its back, clasping the snail with its rear end. It then inspected the snail within and attempted to bite it. However, at this point the snail pushed the head of the larva out of its shell and took off round the box – with the larva firmly attached, going for a ride. The snail went all the way round the box and then climbed on to the inside of the top. There it rested, whereupon the larva managed to poke its head inside the shell, bit the snail and caused it to fall to the bottom of the box – with the larva still firmly attached.

There was no more visible resistance from the snail. The larva then pushed the snail backwards across the tissue on the bottom of the box and then under the tissue where the larva started to enter the snail. Over the next couple of days it disappeared inside the shell as it ate the snail. On 16 June a quantity of brown liquid was expressed from the shell. On 17 July I inspected the snail shell and found that the larva had pupated inside and had used its final skin to plug the entrance to the shell. From the form of the pupa it was evident that it was a female – see the previous article for the differences between the male and female pupae.

On 15 August the pupa pushed the larval skin out of the snail shell and it was then possible to see the pupa moving within the shell. On 18 August the pupa itself emerged from the shell and rested on the tissue outside. It was off-white in colour and 20mm long. On 25 August the head end of the pupa started to turn brown in colour and over the next week the pupa moved away from the shell by rolling round and round.

By 3 September, brown coloured dashes started appearing down the back of the pupa and on the following day brown rings round the abdominal segments appeared. Later that day the pupal skin started to split from the head end as the adult beetle began emerging. From early on 5 September until late on 11 September I was on holiday in Cantabria, northern Spain. On my return I just had to check on the beetle and found that it was alive and appeared to be in good health as it was walking round the plastic box. It was 20mm long, off-white in colour and had brown rings around the abdominal segments.

Then, on 13 September the beetle climbed onto the back of a snail shell. It tried to enter the shell but the snail within pushed it out. The snail then took the beetle for a ride round the box but, after a while,



the beetle dropped off and hid under the tissue paper. Unfortunately, the next morning I discovered that the beetle had died overnight without moving from its resting place. It was a great pity that I had been away when beetle completed its emergence. There was nothing more to be done other than to mount the beetle etc on card. Plate 2 shows, from left to right, the snail shell in which the larva pupated with the final larval skin beneath, the pupal skin and the adult female beetle.

During the period from June to October 2010 I had kept in touch with Pablo Bahillo de la Puebla and he had kindly sent me a copy of another article he had written about this family of beetles in 2005 – see under references below. This includes a detailed key to those species of *Drilus* and other genera that are found in the Iberian Peninsula. Pablo explained that the males can be positively identified fairly easily as the antennae of the individual species differ in form. However, females were not easy to separate. He asked me to send him a close-up photo of the adult and the larvae and he would see if he could make an identification for me.

I consulted my friend Juan, who is the local librarian and he made enquiries for me to find someone who would be able to take the necessary photos. Later he put me in touch with Francisco Villena Sanchez (Fran), who agreed to come to my house with his equipment and to see what he could do. On 5 February 2011 Fran duly arrived and undertook the task of photographing my four specimens. Later in the day he sent copies to me by e-mail and these I forwarded to Pablo Bahillo de la Puebla and asked if he could put a name to the beetle and the larvae.

Pablo quickly replied and reiterated that it is not easy to identify females from this family. However, taking everything into account he is now sure that all four of my specimens belong to the species, *Drilus mauritanicus* Lucas, 1849. It has been recorded in the past from Andalucia and, indeed from our Province of Sevilla, but not previously within 70 kilometres of the villages of El Saucejo and La Mezquitilla.

I have already referred to two of Fran's photos – Figure 2 and Plate 2 – and would now like to refer you to the other two. Figure 1 shows the original larva that I found in the village of La Mezquitilla in June 2001. Plate 1 shows the empty shell of a snail eaten by the larva found on a track in the local countryside on 6 December 2009. Below this, on the left is the larva, which was found dead inside the shell on 21 May 2010; on the right is the larval skin from the moult that took place on 2



May 2010. As you will see from these photos, these larvae really are very strange looking creatures.

At this point I was hoping to give an account of the habits of the adult beetles. However, I am unable to do so as I have yet to see a male – and the female, that I managed to rear, died very quickly after emergence. However, Richard Jones has written an article about the female of the British species, *Drilus flavescens* (Geoffroy), which was published in the December 2003 *Bulletin*. This gives an excellent account of the habits of the female as well as listing a whole series of other articles and books for further reading.

I am now on the lookout for more larvae in the hope that I will be able to rear them through to the adult stage, and that at least one will prove to be a male! Three of the larvae that I have found up to now have, as discussed in my previous article, been rather larger than the maximum size given for *D. mauritanicus* in other literature. Both the adult and the pupa of these beetles are sexually dimorphic and I just wonder if all the larger larvae are female? Watch this space...!

Acknowledgements

My thanks, once again go to Pablo Bahillo de la Puebla for his help in identifying the larvae and the female; for sending me a copy of his other article; and also for his general help and encouragement. Special thanks are also due to Fran Villena Sanchez for his considerable patience in taking the photos for me.

References

- Bahillo de la Puebla, P. and Lopez Colon, J. I. 2005. Los Drilidae Lacordaire, 1857 de la Peninsula Iberica e Islas Baleares (Coleoptera). *Boletin Sociedad Entomologica Aragonesa* **37**: 119-128.
- Jones, Richard A. 2003. The bizarre wingless female of the beetle *Drilus flavescens* (Geoffroy) (Coleoptera: Drilidae). *Bull.amat.Ent.Soc.* **62** (451):245-7.
- Keen, David. 2010. Letter from Spain - 9th in a series - Drilid larvae found locally. *Bull.amat.Ent.Soc.* **69** (491): 154-159.





New discovery of the rare hoverfly *Parbelophilus consimilis*, Dip., family Syrphidae in mid-Wales

by Dr Elisabeth A. Harris

Powys Flora Conservation, 18 Cae Castell, Hospital Rd, Builth Wells, Powys, LD2 3BE, Wales

The rare hoverfly *Parbelophilus consimilis* has been recorded in Powys, mid-Wales after 28 years.

The location is an acidic, oligotrophic mire consisting of two basins (a northern basin and a southern basin) separated by a drier ridge of peat and associated vegetation. The northern basin is next to a large pond.

Currently there are three species of hoverfly in the genus *Parbelophilus* in the UK (<http://www.dipteristsforum.org.uk/>):

- *Parbelophilus consimilis*
- *Parbelophilus frutetorum*
- *Parbelophilus versicolor*

Of these *Parbelophilus consimilis* is the rarest and is classified as **Vulnerable** on the Conservation Designations for UK Taxa Spreadsheet (<http://jncc.defra.gov.uk>). Vulnerable species are considered to be facing a high risk of extinction in the wild.

Parbelophilus consimilis has several characteristic features that help with its identification (1) the apical part of the front tibia has a black spot dorsally, (2) the mouth edge is produced well forward and (3) the male hind femur lacks either a projection or brush of hairs at its base (Stubbs and Falk 2002).

Its habitat and ecology is described in the Review of Scarce and Threatened Diptera (Falk 1991):

“*Parbelophilus consimilis* seems to favour pools which are transitional between bog and fen, often in association with *Typha*. The larvae are aquatic (of the rat-tailed maggot type) possibly living between the leaf sheaths of *Typha*. Adults recorded from May to August”.

This description is consistent with the habitat and ecology of the mid-Wales site (Plate 3).

Several males were observed feeding on marsh cinquefoil (*Comarum palustre*, Plate 4) in the shaded lagg woodland of the northern basin of the mire and females were found feeding at creeping buttercup (*Ranunculus acris*, Plate 5) close to the *Typha latifolia*, (Plate 3) on the north-eastern side of the pond along with the hoverfly *Neoascia tenur*.



Both male and female *Parbelophilus consimilis* were found on the leaves of plants surrounding the lagg woodland of the northern basin mire.

Comarum palustris is a major component of the mire vegetation of the lagg woodland and is an important food source for several other insects in the invertebrate community including the honeybee (*Apis mellifera*), the tree bumblebee (*Bombus hypnorum*), the early bumblebee (*Bombus pratorum*), the white-tailed bumble-bee (*Bombus lucorum*), the forest cuckoo bee (*Bombus sylvestris*), the buff-tailed bumble-bee (*Bombus terrestris*) and the solitary bee (*Andrena haemorrhoa*).

Other mire plants include star sedge (*Carex echinata*), soft rush (*Juncus effusus*), marsh speedwell (*Veronica scutellata*) and large stands of the locally uncommon bottle sedge (*Carex rostrata*).

This site is particularly notable as *Parbelophilus consimilis* was last recorded in Wales in 1998 (<http://data.nbn.org.uk/>) at Cors Erddreiniog, the largest of the fens on Anglesey, North Wales.

Since 1998 the species has continued to decline in the UK with the last recorded sighting in England in 2002 (<http://data.nbn.org.uk/>).

Parbelophilus consimilis is not the only rare invertebrate that has been found at this site this year. Four bee beetles (*Trichius fasciatus*, (Plate 6), Col., family Scarabaeidae) were recorded on the purple flowers of marsh thistle (*Cirsium palustre*) close to the south-western side of the pond.

These docile beetles are bumblebee mimics and are identified from other species in the genus by whitish hairs on the abdomen, a complete black band (rather than spots) on the front of the elytra and a large tooth on the apical part of the mid tibia.

Most records are from Highland Scotland with sporadic sightings in Wales and on rare occasions in England.

The results of this survey have revealed the importance of nature reserves for the conservation of insects in the UK. However, more needs to be done to ensure that these habitats do not become isolated islands in a desert of modern developments such as new roads and intensification of agriculture.

References

- Falk, S.J., 1991. A Review of the Scarce and Threatened Flies of Great Britain, Research and Survey in Nature Conservation, No. 39.
- Stubbs, A.E. and Falk, S.J., 2002. British Hoverflies an Illustrated Identification Guide, 2nd edition revised and updated by Ball, S.G., Stubbs, A.E., McLean, I.F.G, Morris, R.K.A, Falk, S.J. and Hawkins, R.D., p299.



***Acleris cristana*, W B L Manley and The Insect Room**

by Rob Partridge

11 New Road, Mepal, Ely, Cambridgeshire CB6 2AP.

I suppose that if you do not believe in coincidence then you probably believe in something much more unlikely... but an entomological magazine is surely no place for such speculations, and so I'll get straight on with the story. The spring of 2011 has been an odd one so far, at least as the records from the MV light trap in the garden are concerned. The first proper spring moth was, not unusually, the Hebrew Character, *Orthosia gothica*, on the 17th of February followed by March Moths, *Alosophila aescularia*, and Common Quakers, *Orthosia cerasi*, on the 27th. The beginning of March brought several species a little earlier than usual but then some colder, clearer nights seemed to slow things right down again. Even though I have been recording in my Cambridgeshire garden for more than twenty years, I still get new and unexpected species and by this time last year I had already found a Small Brindled Beauty, *Apocheima hispidaria*; nevertheless, up to the 22nd of March every species recorded had been entirely predictable.

At first glance, there wasn't anything very interesting on the 22nd either with fewer than thirty moths of five species, and I almost missed it – a tortrix tucked up inside the eggbox. I must admit straight away that my copies of Bradley and Tremewan have been used only intermittently over the years. Wonderful though these books are, there are still too many occasions when the inexpert is defeated by a moth that is a little too worn to be identified other than by examining its procreative parts under a microscope, particularly those in the second volume covering the Olethreutinae. However, on this occasion I could see straight away that I was looking at something to be found in the first volume, one of the *Acleris* genus of which I had kept a few specimens in the past. As I examined it more closely, something about it began to look interesting... that whitish stripe along the tornus. I knew that I had never encountered this moth in person but I had certainly looked at it before.

It is an unwritten law that, whereas all common species may be tubed safely out of doors, anything remotely intriguing will escape into the hedge, and so I carried the eggbox into the garage and closed the door. A gentle tap and it fell obligingly into the glass tube and immediately I could see the large and distinctive raised tuft of scales on



the forewing. As I walked into the house, heading for the bookshelf, Latin names were surfacing on the ever-murkier pool of memory – *bastiana?* *literana?* *cristana?* I turned straight to the final colour plates in the book, remembering as I did so what had fascinated me about this little group – the extraordinary degree of variation that they exhibit. The illustrations by Arthur Smith are excellent and, combining them with some careful reading of the text, I was quite quickly satisfied that I had a specimen of *Acleris cristana*.

In Bradley and Tremewan, published in 1973, its distribution is described as 'local and generally uncommon' in the southern counties, and its habitat preference is said to be 'wooded areas'. We have a few scattered trees and a few mature hedgerows here in the fens but nowhere that sounds like a home for *cristana*. No mention is made of any tendency to wander. The foodplants are common though, particularly blackthorn and hawthorn. Cambridgeshire has an active online group called Cammoths, and I placed the record there on the day of capture. Two days later Mike Weedon posted a reply, saying that he had taken the same species on the 23rd of March in Peterborough at a 40W actinic light, and then another on the 7th of April. Both records were accompanied by very good photographs, leaving no doubt in my mind as to the identification. As the moth overwinters as an adult, these must have been insects that had survived the harsh winter weather in November and December of 2010. Finally, Peter Holt reported that he had taken one at actinic light on the 7th of August 2009 in Cambridge; he had also searched the Cammoths database and discovered a fifth record on the 18th of April 2009 though at present I am not sure of the exact location of that one. So it seems that *A. cristana* has had a presence in Cambridgeshire, from widely separated locations over the past two years at least.

In one sense that is the end of the matter but in my reading I had come across references to one Lt. Col. W B L Manley F.R.E.S. and a monograph that he had published in the same year as Bradley and Tremewan, to which they made reference. It appeared to be 206 pages of text and to have four colour plates depicting the range of variation in this one species. When I discovered that Pemberley Books had a copy at a very reasonable price, I had to send for it out of curiosity. It is another remarkable piece of work by a lepidopterist of an earlier generation, comparable to the best produced by J W Tutt himself. There is more detail on the habitat and foodplant – Manley is certain that blackthorn, *Prunus spinosa*, is much preferred – and on how to collect specimens. There is an extraordinary key to the huge variety of named forms which works well; the organization and effort required to



produce this alone must have been immense, a labour of love. I doubted that I would ever see for myself these intricately patterned moths but Manley's monograph now sits on my bookshelf as a reminder of what can be achieved with determination and dedication.

For some years I have been aware that Cambridge University holds an important collection of insects, including large numbers of the Lepidoptera. Early in the year I had made contact with the Zoology Museum and arranged to make a private visit to The Insect Room to look at the collection of macro moths; I was particularly keen to see what specimens were held of moths collected in the old county of Cambridgeshire, the area in which virtually all of my own recording has been done. I received a warm welcome from Russell Stebbings on the 13th of April, and after a brief introduction to the work of the department I was given the freedom of the cabinets for the rest of the morning. Some three hours later, despite having examined drawer after drawer of fascinating material, I felt that I had barely scratched the surface of what The Insect Room has to offer the entomologist, be he a professional, an expert or an ever-hopeful amateur like me. The thousands of specimens, carefully catalogued and well preserved, must represent hundreds of thousands of hours in the field, in the wood, in the fen, collecting specimens that only increase in value as time passes by. New techniques with DNA might well produce some amazing discoveries in the next few years – and you cannot get DNA from a photograph, digital or otherwise.

As a break from the larger moths, I moved on to the Pyralidae, a favourite family of mine which contains, in my opinion, some of our most beautiful moths. And then I noticed that the cabinets next to these contained the Tortricidae, and I decided to look up my new acquaintance, *A. cristana*. He was present, it has to be said, in abundance, and for a moment I was puzzled as he seemed to have whole drawers to himself – the same moth but in so many contrasting forms, and each specimen beautifully set. The labels too were immaculate and far more detailed, I'm afraid to say, than my own. I placed one of the drawers on the table in better light and studied the contents more closely – and found that I was looking at the very specimens upon which Manley had based his extraordinary monograph. Many of the moths bore his own name, and others had been given to him by fellow devotees or acquired by him during his years of research into the species. As a senior officer, it seems that Manley had been stationed in London during the Second World War, unable to make the field trips abroad for the exotic butterflies that had



been his passion before it. Instead he turned his attention to the comparatively tiny and insignificant *Tortrix* and produced something remarkable – a wonderful example of how to make the best of things.

My thanks to Russell Stebbings and also to Dr William Foster, Curator of Insects at The Insect room at Cambridge University; visits by members of the public are welcomed as long as they have been arranged in advance. Thanks too to the moth enthusiasts of Cammoths for their willingness to share records and opinions.

References

Bradley, J.D. and Tremewan, W.G., 1973. *British Tortricoid Moths*. The Ray Society, London.

Manley, W.B.L., 1973. *A Guide to Acleris cristana in Britain*. E W Classey, Middlesex.



A true story

by Wesley Caswell (3133)

Thursday, 21st April, 9.45pm. Our living room: I am sitting with wife Ann on our sofa – she is talking on the telephone to a friend. Suddenly I feel something large and fuzzy crawling up my left arm (which is bare, due to a heatwave). Looking quickly down to see what it was, I was amazed to see a large male moth of the *Automeris* species, with its wings partially expanded (these moths come from America).

What did my wife do? Shout, scream for help, or even run out of the room? No, just a rather startled gaze, and then continued with her conversation – still, I suppose she is used to all sorts of exotic creepies in the house during the last 30 years of married life!

Anyway, *where* did the moth come from? The only *Automeris* cocoons I have are 70 feet away at the end of our garden in a shed, and these are all accounted for and unhatched as yet?

My only conclusion is that one escaped last year just as it was about to “spin up” and stayed hidden in some corner of our living room, or perhaps it even made its cocoons on the back of the sofa!

Had it emerged when a visitor was sitting on the sofa, they may well have had a heart attack, and I might have been writing this article behind bars!



On the apparent attraction of two members of the Genus *Hepialus* (Lep.: Hepialidae) to tomato plants

By Jamie C. Weir (13855)

32 Paul Drive, Airth, Falkirk, Stirlingshire, FK2 8LA

Email- jweir007@btinternet.com

Observations and Conjecture on *Hepialus sylvina*

On the evening of the 26th of July 2010, just as the light was fading, I was watering the various plants which grow in my greenhouse, a great many of which are tomato plants. The plants were purchased and planted in April and were, by then, very large with the fruit at the bottom beginning to swell and ripen. However, most of the plants were still covered with many yellow flowers which one has to 'tap' regularly, lest they may fail to pollinate. The flowers are relatively small but this 'tapping' often gives off huge volumes of pollen into the air, and can stain your hands a bright yellow.

Once I had finished this 'tapping' of the tomato plants I began to water them, and the various other plants in the greenhouse. It was then that I noticed a moth dart through the then opened door and toward the plants. It fluttered around frantically for a while until I was able to capture it. As I examined it another flew in. I managed to ascertain that this new moth was of the same species as the previous one but, as I attempted to catch it too, it bolted back outside. All was quiet while I finished watering the plants. I made my way out of the greenhouse when another moth, of the same species yet again, flew right at me. As I was blocking the doorway it did not enter the greenhouse but flew about me for a while then fluttered at the glass on the outside, as if trying to reach the plants inside. It was here that I was able to confirm its identity.

I set the specimen I captured but after consulting Skinner (2009) I realised that all the moths I was observing were undoubtedly male Orange Swifts *Hepialus sylvina* (Linnaeus, 1761).

On the next evening, the 27th, I again went out to tend to the plants in the greenhouse when, again after the 'tapping', as I was watering the same happened again. This time two male *H. sylvina* flew into the greenhouse, the second two minutes after the first. As I closed the door another moth flew past me on the outside; it was definitely of a rusty orange colour, as one would expect in male *H. sylvina*, but as it never landed anywhere I cannot say for sure whether it was definitely an Orange Swift.



So, this now poses us with the question, why did the moths fly into the greenhouse at all? Well, there are several possible hypotheses which could be suggested, and I intend to look at them here.

Firstly, they could have simply flown in by accident. It seems to me, however, that this is highly unlikely. Surely it seems strange that five (possibly six) moths *of the same species* would 'accidentally' fly in, over two consecutive nights. Furthermore, I have never had any other moths at all enter the greenhouse at any time during my watering, which one would not expect if they were entering merely by chance. Also, my greenhouse is positioned in a most awkward place; with a fence on its left and sitting opposite a wall, it is quite closed off in a corner. Not the sort of position which makes accidental entry likely. Finally this is the only record I have ever made of this species of moth, even although I ran my 40W Actinic Heath trap only a few nights before and no *H. sylvina* turned up in it. Therefore it seems unlikely that if it was simply flying around randomly I would not have encountered it before; it is stated, after all, as coming 'freely to light' in Skinner (2009).

The second possibility is that the moths were perhaps attracted to a plant in the greenhouse which may have acted as the foodplant of their larvae and upon which they could lay their eggs; however, upon closer examination this could certainly not be the case since all the moths observed were males.

The third and final possibility is that the male *H. sylvina* were drawn, in some other way, to something in particular which was present in the greenhouse. The hypothesis, therefore which I arrived at was that the moths were attracted, somehow, to the tomato plants therein; these making up the overwhelming majority of the occupants. I decided then to test this hypothesis by experimentation.

Experimentation on *Hepialus sylvina*

Introduction

Part I of this paper, as we have seen, gives a detailed account of the observations which prompted these experiments and the hypothesis reached; namely that the male moths, *H. sylvina*, were, in some way, attracted to the tomato plants in the greenhouse. This hypothesis was developed out of the evidence alluded to previously. In the first experiment a male *H. sylvina* was left to choose between two choice chambers, one being empty and the other containing three leaves and a bunch of flowers from the tomato plants. In the second experiment a male *H. sylvina* was left to choose between one chamber containing



three tomato leaves and a bunch of flowers and another chamber containing three ivy leaves.

I expected that, if my hypothesis was correct, the moth would, in both experiments, move to the chamber housing the tomato leaves and flowers.

Materials and Methods

Firstly, a choice chamber was constructed to test the moth in. A length of wide transparent, plastic pipe (around 30cm long) was used to connect two glass 'chambers' together. The pipe was big enough to be pushed into the chambers, giving a tight fit and permitting entry of the moth to either chamber. See Figure 1.

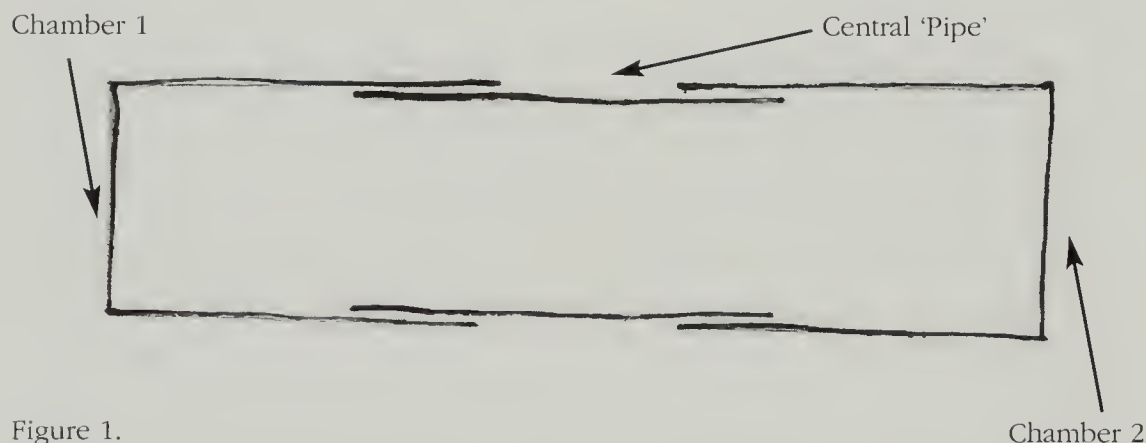


Figure 1.

Chamber 2

Next, three leaves and a bunch of flowers of the tomato plants were placed in one chamber, while the other was left empty. A male *H. sylvina* was then placed in the central 'pipe' of the choice chamber. The whole apparatus was then moved into a fairly dark room to simulate dusk; when *H. sylvina* had first been observed coming into the greenhouse. The moth was left without interference for 15 minutes and so allowed to 'make a choice'. See Figure 2.

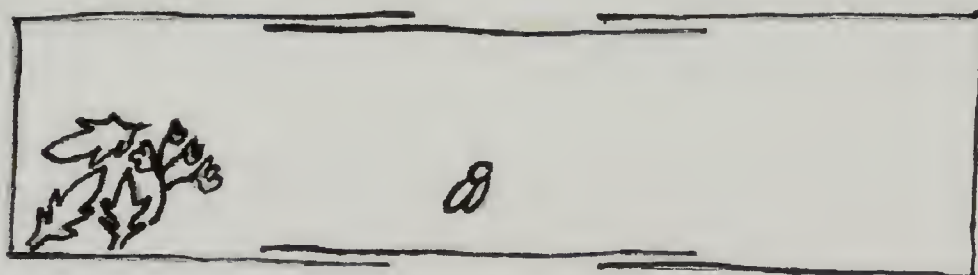


Figure 2.



For the second experiment the above setup was copied exactly, except that in the empty choice chamber three ivy leaves, of similar size and area to the tomato leaves, were placed. In the other chamber, the three tomato leaves and flowers remained. The moth was again left undisturbed in 'dusky' conditions to make its choice. See Figure 3.

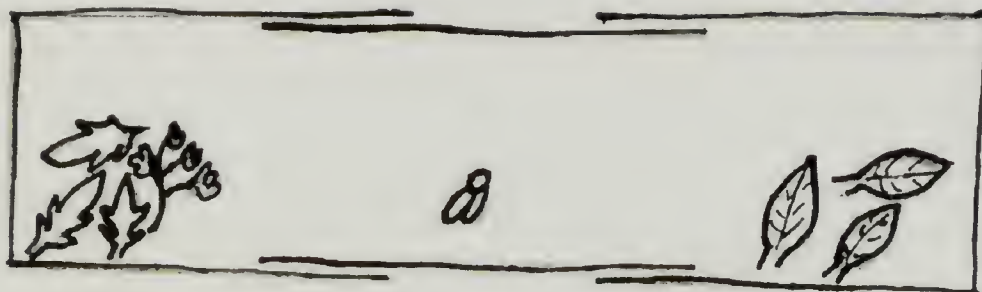


Figure 3.

It is worth noting that the moth used in these experiments was the same individual and each of the above experiments was repeated three times to provide replication. Furthermore, one leaf was used from each of the following varieties of tomato plant: Gardener's Delight, Alicante and Moneymaker; the varieties present in the greenhouse. Finally, it should be noted that the experiments were carried out on the 27th of July 2010 by the author.

Results

In all six of the experiments carried out, without exception, the moth chose to move, after the 15 minutes, to the chamber containing the tomato leaves and flowers.

Observations and conjecture on *Hepialus fusconebulosa*

I should perhaps make one other brief note before moving on. It had been my intention to publish the observations and the results of the experiments shown above in the winter of last year. I was, however, rather occupied for many months in the reorganisation of my Lepidoptera collection and this paper was pushed to the side. It was only a recent event which prompted me to revisit the subject, the details of which I outline below.

I was watering my tomato plants on the evening of the 28th of June (2011) at about 10.45pm and, in almost complete repetition of the events of last year, after the ritualistic 'tapping' of the flowers, a moth rattled through the open doorway, as the light was dying away, hurtled into one of the plants and fell to the floor. After a great deal of effort and many failed attempts I managed to trap the moth in a pill box,



whereupon I examined it. To my great surprise it was not *H. sylvina* which greeted me but its fellow hepialid, a male Map-winged Swift, *H. fusconebulosa* (DeGeer, 1778). So, although this is the only time I have experienced such an event with this species, it would seem that, like *H. sylvina*, *H. fusconebulosa* is perhaps attracted to the tomato plants as well. However, I must stress that I have not been able to carry out experiments, such as the ones shown in Part II, on *H. fusconebulosa* as of yet, so the inferred attraction here is still rather vague.

Conclusions and Discussions

It would seem then that the evidence supplied by the experiment supports my original hypothesis that, somehow, the male *H. sylvina* are attracted to the tomato plants, since the moth, without exception, preferred the 'tomato chamber' to the others. This, it seems to me, no reasonable person could deny. For *H. fusconebulosa*, however, the possibility of some attraction is far more tenuous.

Of course, now we are left with the problem of explaining the seeming attraction these moths have for the tomato plants. The reasons remain, to me, very mysterious and I fear that at the moment I can but merely speculate. My thinking runs something like this: the fact that only males are attracted suggests to my mind that perhaps some chemical, normally given off by the females, is present in the tomato plants; or perhaps their pollen? This seems a logical supposition, but more experiments would need to be done using both male and female moths, and on much larger scale to see if this was, indeed, the case. Of course, there are many other *possible* explanations, and it must be stressed they are all (including my own) only possibilities, but, for the moment, I favour the above.

These observations and experiments, I feel, have massive potential for development. For example, I would like to carry out these experiments on other moths of the Hepialidae, and particularly to investigate the possible attraction *H. fusconebulosa* may have to the tomato plants. As mentioned above these experiments could be expanded to incorporate female subjects and ascertain exactly whether or not it is only the males which exhibit this behaviour. Furthermore, there is the whole question of finding *why* these moths exhibited this behaviour in the first place.

It seems that there is a wealth of scope for future experimentation and I will ensure that the results of any other experiments I carry out relating to this topic are published promptly so that, perhaps, more light could be shed upon these most unusual areas.



The bioblitz experience

by Clive Betts (4976)

Background

Since the beginning of June I have been part of a team running a series of bioblitzes in schools and community locations in the South West. Some of these have been 24 hour events, others “mini” bioblitzes running for an afternoon and evening. All have had the key objectives of educating and engaging children, parents, teachers and members of the local communities with the wildlife found on their doorsteps.

Bioblitzes have quite a long history. I’ve taken an extract from another article that will be appearing shortly in the Royal Entomological Society’s journal “Antenna” to give some background. The term appears to have first been coined in 1996 during an event in Washington DC (see Wright, 2010) and Bioblitzes appear to be a worldwide phenomenon. National Geographic (2010) reports that: “The BioBlitz engages students and members of the public in experiential ecological education, and demonstrates why it’s so vital to conserve our natural resources”. Commenting on a large BioBlitz held in Connecticut in 2003, one of the original organisers (Sam Droege, a wildlife biologist at USGS Patuxent Wildlife Research Center) captures the spirit of BioBlitzes: “...a lot of publicity, kids are involved, the press comes – they whoop it up”.

Anyone can organise and run a BioBlitz although there is a formal home for UK BioBlitzes at the British Natural History Consortium (BHNC), which co-ordinates major BioBlitz events and engages volunteer experts from all over the UK. A contributing factor to the success of BioBlitzes is the competitive element, a race against the clock, that contrasts with a traditional field studies approach. A BioBlitz restricts the time frame in which to find as many species as possible (see Lundmark, 2003). To get deep knowledge of the biodiversity requires time for study, but the aim is more to create engagement and help to raise awareness.

Our recent bioblitzes

Our recent events have been remarkable for two things: firstly the amazing level of interest and enthusiasm shown by the children (and also many adults) for the tiniest creature or flimsiest plant; secondly for the simplicity of the experience in both sharing that sense of discovery (that anyone reading this article will understand) and also in being able to build a useful inventory of wildlife. This can then be used to

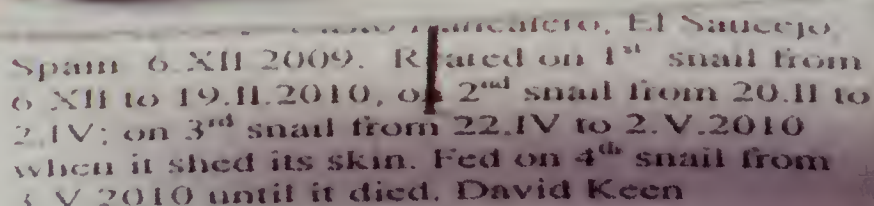


Photo: Fran Villena Sanchez

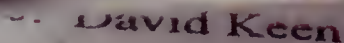


Photo: Fran Villena Sanchez



Plate 3. Great reedmace (*Typha latifolia*) with yellow iris (*Iris pseudacorus*) at the north-eastern part of the pool close to the northern basin and inset: **Plate 4.** Male *Parbelophilus consimilis* feeding on *Comarum palustris*.



Plate 5. Female *Parbelophilus consimilis* feeding on *Ranunculus acris*.

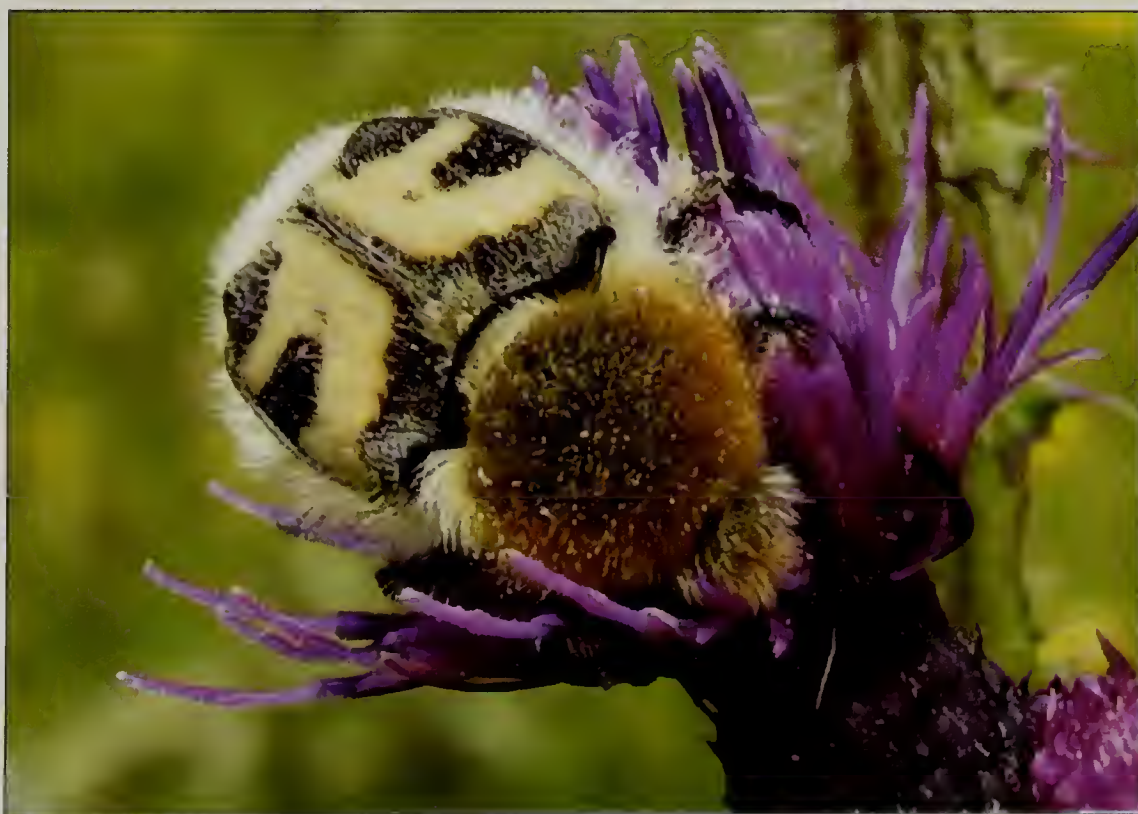


Plate 6. *Trichius fasciatus* on the purple flowers of *Cirsium palustre*.



Plate 7. The Marmalade Hoverfly *Episyrphus balteatus*.

Photo: Andrew Smith



Plate 8. The Marmalade Hoverfly *Episyrphus balteatus*.

Photo: Andrew Smith



maintain and improve the environment for the community as well as provide usable data for local, regional and national recording (and related) schemes. This last point is, perhaps, the most contentious and I will return to this in more detail a little later.

The “three phases”

Our current work is focused on a three phase process with BioBlitzes as the central phase. Phase 1 features work prior to the event itself and includes information and preparation to encourage family learning. Phase 2 is the bioblitz itself which consolidates the pre-learning and adds the elements of discovery and the wildlife audit. Phase 3 happens after the bioblitz and is centred on actions for the wildlife and also reinforcing and embedding the learning from the event.

At a bioblitz event

The “race” element of a bioblitz certainly adds an interesting new angle for me. I have noticed a friendly and highly productive competition developing between myself as “The Bug Man” and colleagues who have adopted the role of “Plant People”. We have as our base a large marquee (Figure 1) which we erect wherever there’s dry and reasonably solid ground (handy during two weekend bioblitzes when we had torrential downpours). In this marquee we have our recording tables (with forms and laptops to capture images and finds – more on this later) a display board where top finds are pinned and a large whiteboard.



Figure 1. Our bioblitz marquee on a summer's afternoon near Crediton, Devon.



We put all our finds on this whiteboard and keep a running total and it is this that prompts the running competition between plant species and invertebrates (Figure 2). The vertebrates do get a look-in but frankly even mammals, birds, reptiles and amphibians *combined* don't stand a chance!

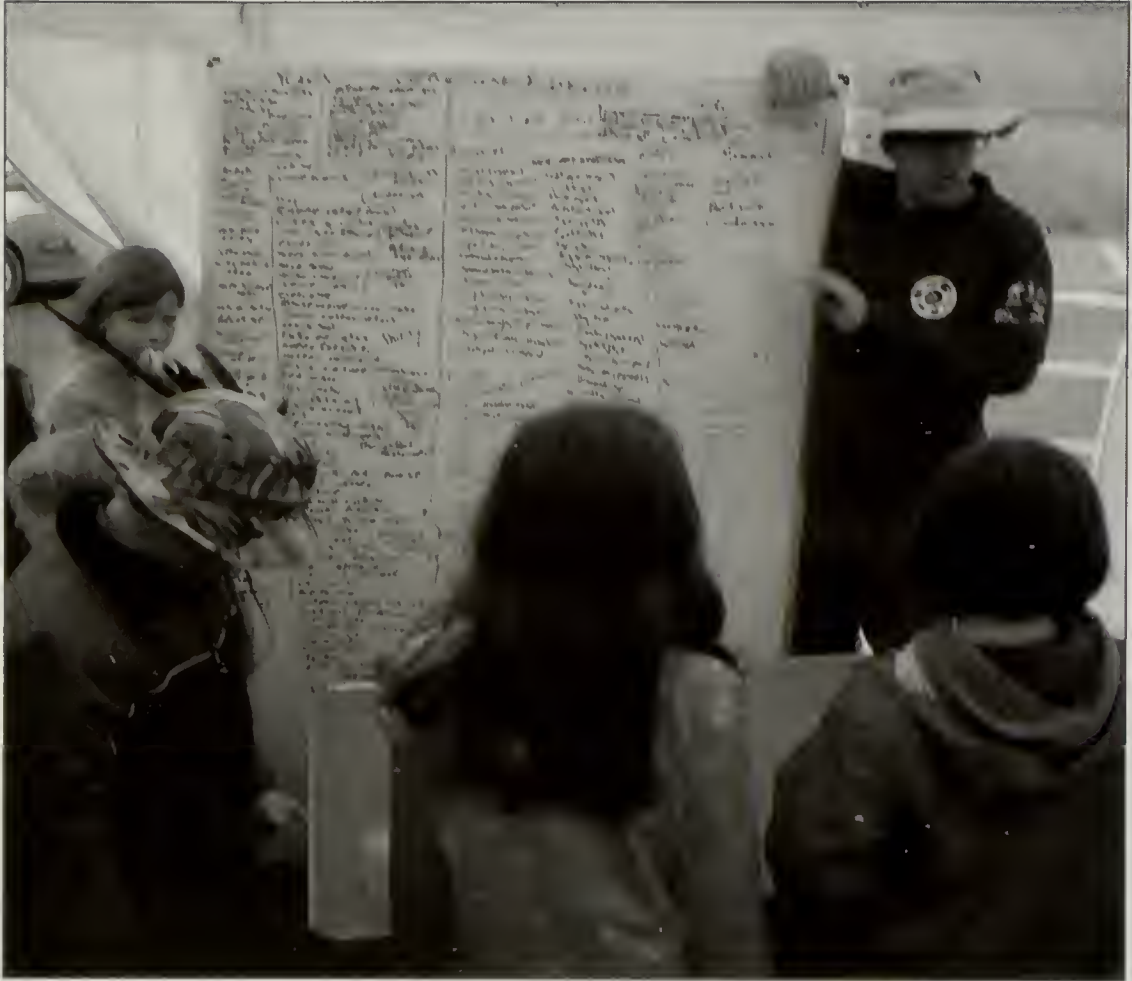
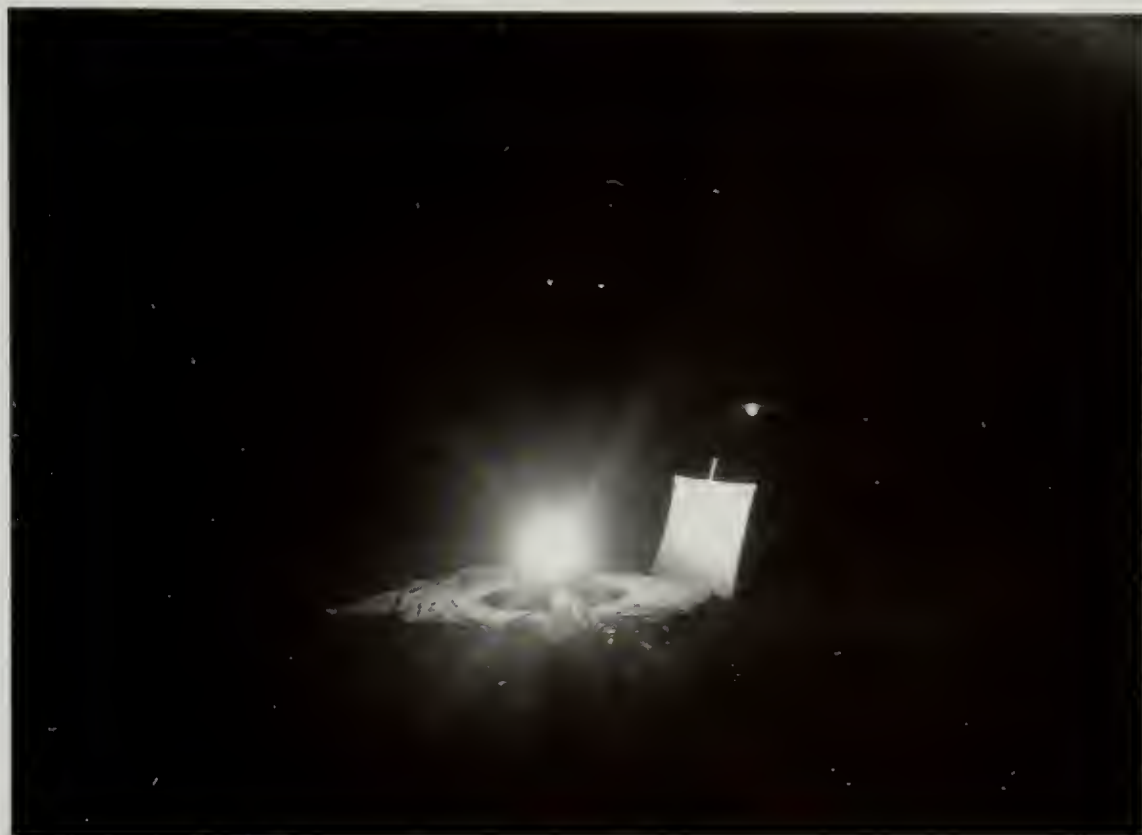


Figure 2. Our leader, Simon Roper, shows Copplestone school our list of plants and animals we found in their school grounds (despite the rain).

The last event in Somerset was the most productive for invertebrates: 121 different species compared to a measly 69 plant species! Among the invertebrates the insects were the most numerous, reflecting both my own area of ability along with an apparently genuine dominance of taxa like beetles, flies, bugs, bees and moths. Of course our sampling methods are also reflected in this profile: we employed pit-fall traps, beating trays, sweep nets and pooters for most of the time with a moth trap (Figures 3 and 4) during the night. Leaf-litter, soil sampling, sugaring and other baiting would influence the type and number of taxa discovered.



Figures 3 and 4. Our mothtrap and sheet with a beautiful Swallowtail moth (*Ourapteryx sambucaria*) at about midnight.



The other factor, particularly for flying insects, was the weather. Two nights were very cold for June and our moth species were really low (well below our peak score of 33 species, which is still poor for the various areas we sampled). This was compounded during two of the days by heavy rain which meant we had to work really hard to locate anything that wasn't hiding away under logs or deep in the undergrowth. Luckily on both occasions we had teams of very keen youngsters armed with nets and pooters who scoured soaking-wet foliage for every creature with great excitement.

Part of the thrill of discovery was shared with these youngsters and we worked hard also to add stories about the animals they were finding: what they were, how they lived, why they were there and interesting things about them. We were all a little surprised by their existing knowledge, even at ages six to seven: clearly the national curriculum is doing some good for entomology (Figure 5)!



Figure 5. Copplestone School Year 2 bug-hunting.

Recording and identifying

The other educational tool we employed with great success was the capture of digital images of the finds. We also used a portable colour printer to print out some of the best pictures, helping everyone to see the range of organisms and also to look at them in more detail. Our

recent bioblitzes have also featured a collaboration with the Open University to help develop their i-Spot identification web resource (Figure 6).



Figure 6. Stacey, one of the i-Spot developers in our marquee.

Everything we photographed went on a record sheet that identified the precise location, its likely ID and any notes about the organism. We then added them to the i-Spot website as we went along, so each image acted, in effect as a “voucher” specimen. IDs could be confirmed or adjusted in this manner for a surprising number of taxa, including some which are quite challenging in life using a hand-lens (e.g. some ground beetles).

Of course this does lead to the question of reliability. Specialists can positively ID a number of insects from good photos including some distinctive but quite uncommon species (especially where different angles and well-defined details have been photographed). Many of the more conspicuous insects (e.g. dragonflies, butterflies, bumblebees, ladybirds) are also, with practice, good targets (Figure 7). However,



whether we can rely on such records to really add detail to our county and national recording schemes (or other biodiversity initiatives) is debatable.



Figure 7. One of the easier beetles to identify: the Lesser Stag Beetle (*Dorcus parallelipedus*), found by one of the schoolchildren at Yeoford School.

The potential problem is that someone has to decide on the authority of the identifiers. It may seem paradoxical but professional “experts” can sometimes have a more restricted field experience and may be less capable of field identification than an amateur working with his or her favourite groups for most of his or her life. Our local moth-trappers are a good example of incredible amateur expertise across many taxa, some of which can be notoriously difficult to determine, but this is not necessarily the case with other groups and so finding the right people to help can be difficult.

Roger Morris (2010) discusses this topic in an excellent account of the value of mapping schemes (with a focus on digital data). Roger’s account shows that records of common, easily identifiable species are increasing and those for harder and/or less common species are declining. In turn the general level of “taxonomic competence” is declining as identification increasingly relies upon images and photographic records rather than sometimes rather inaccessible keys and voucher specimens.



Consequently, converting data captured during a bioblitz into useful research data requires effort both during and after the event, to confirm records (based on the experience of the recorder) and also to communicate records to the relevant bodies. For our purposes we were interested particularly in the range of species (for instance the curious lack of different invertebrates in an otherwise wonderful little pond), the presence/absence of some key species (e.g. very few species of bees on one very rural site) and the abundance of the species we found (e.g. the sole cricket we found in the grass margins of one playing field). This helps us tell the story of the landscape we were surveying and provide some ideas about how to maintain and develop its species-richness.

Critically, we were very keen that participants didn't just find animals and plants but also learned about them and about the landscape in which they were found. This also enabled us to introduce broader concepts and issues around conservation, sustainability, land-use and so forth. These threads will be, or have already been, picked up again after each event: the concluding phase of the 3-phase model mentioned above (Figure 9).

Key messages?

So, what are the messages that might be taken from this account? Ever since I found my lifelong passion and joined the AES in 1972, I have never lost my interest in the natural world (especially if it's got six legs!), but it has taken my involvement with these bioblitzes to rediscover a vital spark of shared discovery and interest.

Bioblitzes can be really exciting, dynamic events that can re-engage people of all ages with nature, and with "minibeasts" in particular. If you see a bioblitz event advertised, or are invited to go to one, then please make the effort and add your own enthusiasm, skill and knowledge to the day. All expertise is extremely welcome!

References

- BHNC website: <http://www.bnhc.org.uk/home/BioBlitz.html>
i-Spot website: <http://www.ispot.org.uk>
Lundmark, Cathy 2003. BioBlitz: Getting into backyard biodiversity. *Bioscience*. **53**(4): 329-329.
Morris, Roger 2010. Web based natural-history recording. *British Wildlife*. **21**(5): 313-317.
National Geographic 2010. <http://www.nationalgeographic.com/field/projects/BioBlitz.html>
Wright, A. 2010. <http://www.suite101.com/content/BioBlitz-an-ideal-education-tool-a276488#ixzz1EuVNyRMt>



Some questions raised by butterfly observations in Central Brittany, July 2011

by David Newman (8968)

17 Merlin Way, Chipping Sodbury, Bristol BS37 6XP.

In the final week of July 2011, I enjoyed a family holiday in central Brittany. We stayed at Lan Menach, an isolated house set in ten acres of meadows and woodland on the outskirts of the village of Perret. The temperature was in the lower 20's centigrade throughout the week. The sky was generally clear with intermittent overcast spells.

In total I was able to identify 25 species of butterfly of which 22 were seen at Lan Menach itself. Of these, 20 were familiar British species including the Wall Brown (*Lasiommata megera*), the Dingy Skipper (*Erynnis tages*), the Clouded Yellow (*Colias crocea*) and the Silver-washed Fritillary (*Argynnis paphia*). The five "exotics" were the Map Butterfly (*Araschnia levana*), the Sooty Copper (*Heodes tityrus*), the Queen of Spain Fritillary (*Issoria lathonia*), the Southern White Admiral (*Limenitis reducta*) and the Swallowtail (*Papilio machaon*). Apart from the ubiquitous Meadow Brown (*Maniola jurtina*) and Gatekeeper (*Pyronia tithonus*), no more than three or four of any one species were recorded. Most records were of singletons.

Observations of interest were:

1. The Red Admiral (*Vanessa atalanta*): Individuals were consistently and significantly smaller than those observed in the UK before and after the holiday. Is this because larger individuals are able to migrate further north than smaller ones?
2. The Southern White Admiral: A singleton was observed at L'Anse de Sordan, a "resort" on the Lac de Guerdelan. I have only observed this species close to wooded lakes or sea (previously seen at Lac de S. Cassien, nr. Grasse in Southern France and on a wooded peninsula on the western coast of Turkey). Is this coincidental, or is this species particularly associated with woodland near an expanse of water?

In fact my field guides seem to be completely at odds regarding the status of the White Admiral (*Limenitis camilla*) [WA] and Southern White Admiral [SWA] in Brittany. Higgins & Hargreaves (1983) have both present, Chinery (1989) and Chinery (1998) has WA but not SWA and Tolman (2001) has SWA but not WA! Have I added to the confusion by misidentifying the individual I observed!?



3. The Map Butterfly: An exciting new species for me, the Map was observed, in its summer garb, at both Lan Menach (two individuals) and L'Anse de Sordan (a singleton). Higgins & Hargreaves (1983) have it present in Brittany but Chinery (1989), Chinery (1998) and Tolman (2001) all show it to be absent. Has this species simply been overlooked in recent years, or has it re-colonised Brittany over the past decade?

References

- Chinery, M. 1989. *Butterflies and Day-flying Moths of Britain and Europe*. Collins.
Chinery, M. 1998. *Collins Guide to the Butterflies of Britain and Europe*. Collins.
Higgins, L. & Hargreaves, B. 1983. *The Butterflies of Britain and Europe*. Collins.
Tolman, T. 2001. *Photographic Guide to the Butterflies of Britain and Europe*. OUP.



Photo Corner



The excellent photo of the Elephant Hawkmoth larva on the cover of the June edition of the magazine reminded me of a photo (above) I took recently of an Eyed Hawkmoth displaying its 'eyes'. These are supposedly intended to deter insectivorous birds but, if so, I can tell you that it didn't work in this case since barely five minutes later I observed a blackbird tucking into this unfortunate specimen for his breakfast!

Martin Stockley



Nature's Epitaph

by Tim Gardiner (11826)

2 Beech Road, Rivenhall, Witham, Essex, CM8 3PF.

Heaven's Gate

It was the morning of 22 July 2011, a bright sunny day with dark clouds on the horizon. I had an hour to kill so I decided to walk up the Wrekin, a reminder of Newport's tragic sunset. Making good progress up the rocky pathway into the wild wood, I was bereft of certainty, all sun bursts extinguished. Emerging out of the darkness once more, blinking, dazed, into the glorious sunshine, I heard the call of a bush-cricket amidst a crown of thorns. Further up the hill, the radar mast loomed with false pride; its silhouette a lonely shadow amongst the bracken and bilberry. This desolate wasteland was alive with the fading sounds of summer, the perfect paradox, trapped between Heaven and Hell's Gate. Before the pinnacle was reached, the Iron Age Fort told its story, of memories long since forgotten, washed away like tears in the rain, moments in time never to be repeated. The crickets together sing the last post from the jagged ramparts. The lone Stripe-winged Grasshopper broadcasts its mournful tune to the four winds, at Heaven's Gate. Lost in the vastness of the world above and below, the beauty of Heaven's guardian beckoned forth. The Raven has flown the tower, through the Needle's Eye I must pass, time to die.

The Road to Hell

From the valley, I could see the Devil's Chair, its gothic architecture mocking all below. But still I must traverse the mires at his feet, always avoiding the piercing gaze of my tormentor on his seat. Now sitting in the Chair after a lazy ascent, the view of the world changes, no longer bright sunshine, no grasshoppers sing, an eerie mist descends to smother all hope. Stumbling, now out of control, I pass England's finest lands in a matter of moments.

The Old Warden Returns

Waking, after a wretched night's unrest, the day to come seems endless. Walking around England's paradise for one last time, I come across Shuttleworth's tombstones, stoic monuments to beloved animals deceased. From atop the hill, my view stretches out across the neglected cricket pitch, ghosts of a past victory haunt the decadent pavilion, and then fade away. But still the grasshopper's plaintive retort echoes in my consciousness. Two o' clock arrives, the deadly game of



wills commences. I have the last word as leather crashes into my foe's only defence, cheers all round, fade out. My success seems so pointless, no mortal conquest can take away the hurt I feel. The sun sets, the light fades in the blink of an eye, in every direction, darkness, no grasshoppers sing. But the Glow-worm's distant fire tempts me, like a siren's call. The Old Warden of the Night, crucified for another's sins, saves yet another life.

Phil Edwards, 1969-2011, *Requiescat In Pace*



A very early Crimson Speckled Footman, *Utetheisa pulchella* (Linnaeus)

by David Keen (3309L)

Casto Bancalero 11, 41650 El Saucejo, Sevilla, Spain

This beautiful moth is very common in this part of Spain in October and early November – frequently coming to light or being found resting on walls by day. Individuals can also be disturbed from their resting places on low growing plants during the day in the local countryside. However, I have not previously seen the moth any other months of the year.

Thus I was very surprised to disturb one in the local fields on 18 January 2011. At first, as it flew off, I doubted that it could possibly be a Crimson Speckled and wondered if it was just another one of the white butterflies that were out that day. Luckily, however, it settled after a very short flight so I was able to walk right up to it and to confirm its identity. I left it resting in the warm afternoon sun. No specimens were seen in other trips to the countryside in January and February 2011.

This would, indeed appear to be a very early record as Manuel Diaz, writing in 1998, says that it flies in only one generation in Andalucia from the end of the summer until the beginning of autumn – presumably from September to October. Josep Ylla Ullastre *et al.*, in their book published in May 2010, write that there are two or three generations in Spain, from April to November. My record for more or less the middle of January would seem worth mentioning.

References

- Diaz, Manuel. 1998. *Mariposas Diurnas y Nocturnas de Andalucia*. Centro Andaluz Libro, S.A. Sevilla. p 204.
- Ylla, J., Macia, R. y Gaston, F.J., 2010. *Manual de identificacion y guia de campo de los Arctidos de la Peninsula Iberica y Baleares*. Argania editio. Barcelona pp 261-4.



Calliphoridae – request for help

by Helen Godfrey, Ph.D Student

*DB254 - Darwin Building, School of Forensic and Investigative Sciences,
University of Central Lancashire, Preston, PR1 2HE.*

I am a Ph.D student at the University of Central Lancashire in Preston. I am part of the School of Forensic and Investigative Sciences - Forensic Genetics Group. My research aims to identify UK Calliphoridae species through the use of genetics.

As several Calliphoridae species are the first to be attracted to a decomposing body, their presence and age at a crime scene can be used in forensic investigations to estimate the post mortem interval. The main problem in this field is the difficulty in identifying species using morphological characteristics. Closely related species, fragmented samples and egg and larval specimens are very difficult to identify. It is hoped that the use of genetics to identify these species will overcome these problems.

My project involves conducting DNA sequencing experiments in order to find regions which differ between species and which can be used for identification purposes. So far I have collected data from nine different regions, some of which look very promising.

The main problem I have, is that my sample set is quite small and thus, I have a very limited idea of the true level of genetic variation that exists between species.

I am contacting you to ask if you could circulate this request to your members, to ask if they would be willing to collect specimens this summer to form part of my sample set. If required, I can provide you with collection packs. All samples, (not just Calliphoridae species) will be gratefully received.



iSpot and the AES

by Martin Harvey

email: M.C.Harvey@open.ac.uk

In 2009 the Open University launched a website to help beginners get in touch with experienced naturalists and learn how to identify wildlife, as part of the OPAL (Open Air Laboratories) project. The site is called iSpot, and can be found at www.ispot.org.uk.

The AES has been a strong supporter of iSpot (see the article in the October 2009 *Bulletin*), and there are five 'AES representatives' on iSpot – these are AES members who are volunteering to help answer questions and sort out identifications for other iSpot users. Each time one of the reps contributes an identification or comment to iSpot an AES logo appears next to the name, with a link back to the AES website.

The AES is just one of a whole range of societies, recording schemes and other sources of wildlife expertise that are helping out on iSpot, and the full range can be seen at www.ispot.org.uk/representatives. Out of all these societies, the AES is one of the top contributors of identifications on iSpot, and we are most grateful for the help of its reps. The use of iSpot is also resulting in a large number of 'hits' on the AES website from people clicking on the iSpot badges to find out more about the AES, and I gather that at least one new member has joined via this route!

The year 2010 was iSpot's first full calendar year of activity, and there have now been nearly 35,000 observations posted on the site, of around 4,000 species, including two insects not previously recorded in Britain: the *Euonymus* Leaf-notcher moth (www.ispot.org.uk/node/7407) and *Systoechus ctenopterus*, a species of bee-fly (www.ispot.org.uk/node/101288). Both of these were found by people who were not especially looking for unusual species, but just being observant – it's amazing what you can discover if you keep your eyes open! Although much of iSpot's activity is about helping people learn about the typical wildlife around them, these exciting finds demonstrate the benefits of large numbers of people sharing their observations among a knowledgeable community.

In fact, of all the species posted on iSpot, the one most frequently observed is an insect: the Harlequin Ladybird. Whether this is good news or not is open to debate of course, given that this is a non-native species with the potential to compete with native ladybirds. The other



most popular insects people have asked about on iSpot are Garden Spider, Common Darter dragonfly, Common Blue butterfly, Speckled Wood butterfly and Six-spot Burnet moth, but alongside these well-known creatures there has been a wide range of observations of most of the insect groups.

The AES is playing an important role in the success of iSpot, and if you know your insects (or at least some of them!) and would like to join the group of AES reps on iSpot please contact Martin Harvey (see above). If you're seeking help with identifying insects or other wildlife then there are lots of people on iSpot who are willing to assist.

iSpot is an OPAL (Open Air Laboratories) project, and is funded by the Big Lottery Fund. For more about OPAL see: www.opalexplorenature.org



Chamomile Shark (*Cucullia chamomillae*) update

by Frank McCann (6291)

Further to my article in the *Bulletin* (2010 vol **69** no 492) on the status of the Chamomile Shark (*Cucullia chamomillae*) in Glasgow, I can now add that I have found a breeding colony of this moth in the Parkhead/Shettleston area of the City. The pretty and well camouflaged larvae (seen at Crail Street, Parkhead last year, and in June/July this year at Quarrymore street, Shettleston and further north at Provanmill) were all on brownfield sites, in one case just off the pavement, and they were active in the warmth of the day, resting near the top of the chamomile plants. It looks as though the species has a good foothold in Glasgow in the areas where I've encountered it so far, and these locations are likely to be more or less the north-western limits of its range.



Species Focus: The Marmalade Hoverfly *Episyrphus balteatus* (Degeer, 1776). Diptera, Family Syrphidae

by Phil Wilkins

Beech House, Church Road, Stockton, Norfolk, NR34 0HJ.

Introduction

Episyrphus balteatus is a very familiar hoverfly (Plates 7 & 8). It is one of our commonest and most distinct species. Many hoverflies have abdominal markings that are variations on yellow and black stripes. However, *E. Balteatus* has a unique pattern within this scheme. The background is orange-yellow, but unusually there are two black stripes on the second and third abdominal segments. It is possibly this patterning that has given rise to the English name. The stripes resemble the strips of orange rind in marmalade. Many authors have tried to give insects English names. The Marmalade Hoverfly seems to be one of the rare exceptions where a name has actually stuck. It is certainly used widely on the internet and seems to be gaining momentum (though mainly amongst non-entomologists).

Despite its familiarity, there is still much that can surprise us about this species. There is even more that we are yet to learn.

Taxonomy

E. balteatus is our sole representative of the genus *Episyrphus*. Indeed, the only similar looking hoverflies are found in Africa, Asia or Australasia rather than Europe. In common with all hoverflies, it is placed in family Syrphidae. There are over 250 species from this family recognised on the British list. Syrphidae is placed within the sub-order Brachycera, part of the order Diptera (True Flies). Brachycera literally means 'short-horned'. All of these flies are so-called since their antennae are relatively short and stubby. The sub-order also includes families containing soldier flies, snipe flies, horse flies, bee flies and robber flies amongst others.

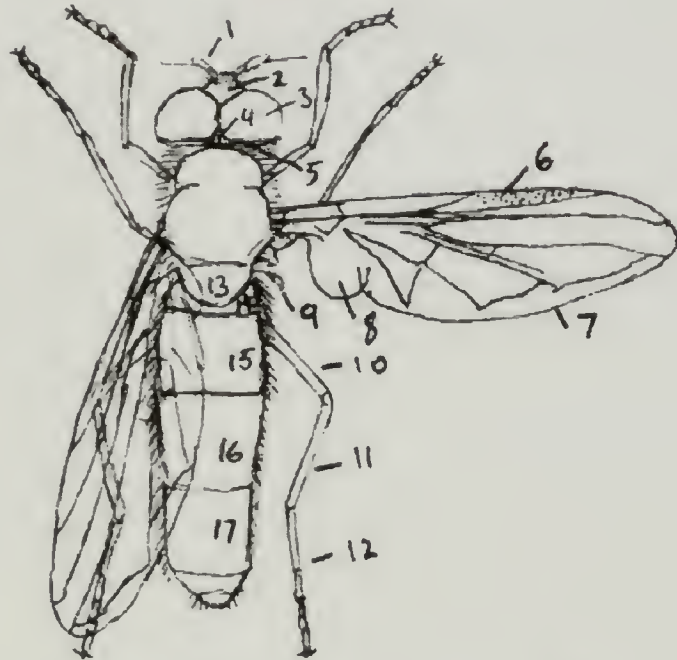
Within the family Syrphidae, *Episyrphus* is usually placed in the tribe Syrphini. It shares this group with many of our commonest and most distinctive hoverflies.

Hoverflies are recognised as fairly robust flies with legs that are only moderately long. Like all true flies, Hoverflies have one pair of wings, the second being modified into balance organs known as halteres. The head is dominated by a large pair of compound eyes. Inserted onto the



head are the antennae. Hoverfly antennae are in three segments, the third bearing a tapering bristle or arista.

Structure

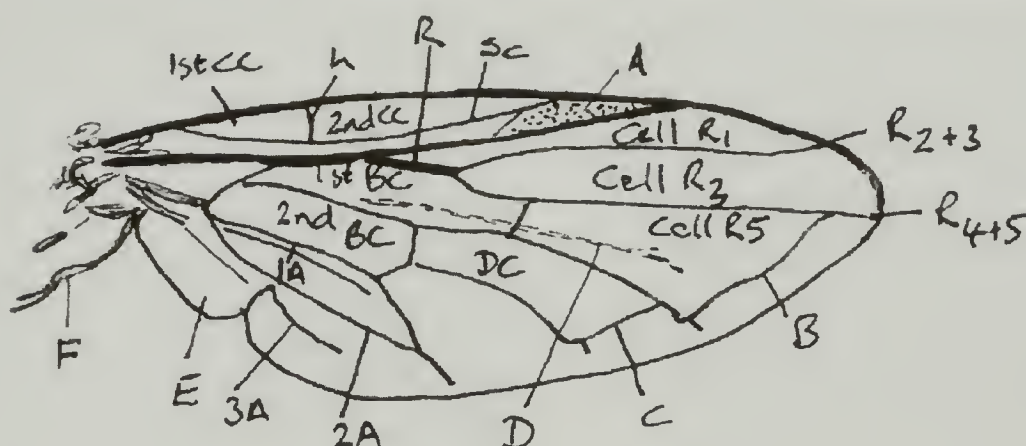


1 Antenna, 2 Frons, 3 Compound eye, 4 Vertex with simple eyes (ocelli), 5 Occiput, 6 Stigma, 7 Wing, 8 Alula, 9 Haltere, 10 Femur (plural femora), 11 Tibia, 12 Tarsus, 13 Scutellum, 14-17 Abdominal segments 1-4.

Hoverfly wings follow the same basic pattern. Although the naming of parts seems complex, it is useful to know the correct terms. This makes it easier to describe the subtle variations that help to identify different species. In the diagram, the veins are numbered and lettered, with the following letters Sc=subcostal, R=radial, M= medial, A=anal. The cells (between veins) are labelled CC=costal cell, DC=discal cell, BC=basal cell. The cells are named after the vein above them.

The most important feature is the false vein. It is this that distinguishes wings from Hoverflies (family Syrphidae) in contrast to other true flies. It is faint and does not connect to other veins at each end.

Episyrphus balteatus is a medium-sized fly, with a wing length of 6-10mm. It has a rather thin and elongated shape overall. The distinctive markings on the abdomen have already been mentioned. The darkness and clarity of these may vary, however. The thorax is reasonably hairy and mainly brown with faint grey longitudinal stripes.



Key: A–Stigma; B–Upper outer cross-vein; C–Lower outer cross-vein; D–False (spurious) vein; E–Allula; F–Squama

Life History

The Marmalade Hoverfly overwinters as an adult. They will try to hibernate in Britain, though, particularly in the north, they may not survive cold winters. Males will form territories and display to females. They will guard these areas, usually in sunspots. The males can be seen hovering and chasing off males or attempting to mate with females.

After mating, the female commonly lays her eggs on plants near established aphid colonies. Occasionally she may chance a plant that looks suitable, even if it has no aphids as yet! Although the larvae that hatch will mainly feed on aphids, they are known to be cannibalistic, eating other hoverfly larvae, even smaller examples of their own species.

The larvae are whitish and semi-translucent. They are similar to other aphid eating Syrphid larvae. They are rather flattened and have no separate ‘head’. There are mouth hooks at the front end. These are used to grab aphids and pierce them in order for the larva to suck out the aphids body fluids. It is estimated that a single larva will consume about two hundred aphids during its development.

Pupation usually occurs next to the aphid colony. The larval skin hardens to form a protective puparium. The whole cycle from egg to adult lasts about a month. There are usually two generations per year – spring and summer to autumn. As the spring generation derives from those individuals that have hibernated, it may not be present after a hard winter.



The Marmalade Hoverfly *Episyrphus balteatus*.

Photo: Andrew Smith

Writing in 1951, Colyer and Hammond describe large swarms being found with allied species in coastal districts. They suggest this as possible evidence for migration from the Continent. Such migration is now generally accepted as a regular occurrence. It is now thought that the species struggles to survive our winters and influxes from mainland Europe are required to maintain healthy populations. Stubbs and Falk (1996) state that 'some adults succeed in hibernating through the winter', again suggesting that the migrants are important for springtime abundance. Large numbers migrate to the Mediterranean and there is good evidence for flight paths over high passes in the Alps (Aubert et al. 1976; Gatter and Schmid 1990). In the Mediterranean, flies have been found on yachts well out to sea, demonstrating their ability to cross large expanses of water (Schmid, 1999). It is quite remarkable how such a seemingly delicate species can migrate such vast distances.

Occasionally we have spectacularly large influxes with huge swarms at coastal locations. This often

Distribution and Notes

E. balteatus is widespread over much of the country, though it tends to be more numerous further south. It can be found throughout much



of the year, though clearly commoner in the summer months. The adults feed on nectar and are sometimes seen in large numbers on favoured flowers such as umbellifers (such as hogweed or cow parsley), ragwort or thistles. They are thought to be important pollinators.

The summer generation will migrate south, though (as already mentioned) some will brave our southern British winters by attempting to hibernate.

Conclusion

The 'Marmalade Hoverfly' is a fascinating species, about which we still have much to learn. Since it is so common, it can be easily observed. Simple records of dates, numbers and flower species visited will add to our knowledge. Ideas for more detailed study can be found in the latest AES Handbook – *The Dipterist's Handbook* edited by Peter Chandler.

References

- Aubert, J., Aubert, J.-J. And Goeldlin, P. 1976. Twelve years of systematic trapping of syrphids at Bretolet Pass in the Alps. (in French) *Mitteilungen der schweizerischen entomologischen Gesellschaft*, 49, 115-142.
- Chandler, P. (ed) 2010. *A Dipterist's Handbook (Second Edition)*. Amateur Entomologists' Society. London.
- Colyer, C.N. and Hammond, C.O. 1951. *Flies of the British Isles*. Frederick Warne, London.
- Gatter, W. And Schmid, U. 1990. The migration of hoverflies at Randecker Maar. (in German) *Spixiana (suppl.)* 15, 1-100.
- Gilbert, F. S. 1993. *Naturalist Handbook 5: Hoverflies (Revised edition)*. Richmond Publishing, Slough.
- Schmid, U 1999. Records of hoverflies on the Mediterranean Sea (Diptera, Syrphidae) (in German) – *Volucella* 4, 167-170. Stuttgart.
- Stubbs, A. E. And Falk, S.J. 1996. *British Hoverflies (revised edition)*. British Entomological and Natural History Society, Reading.





BOOK REVIEWS

Photographing the Microworld

by S. Belorusteva and A. Sochivko, 2011. 176pp., fully illustrated in colour. Softback. Vivays Publishing (www.vivays-publishing.com). ISBN 978-1-908126-00-9.



The book was originally published in Russian. In common with many such publications, phrases that work well in the original language sound a little forced and unusual in English. However, it has to be said that this translation is better than many I have seen. The text flows nicely and it is fairly easy to read, if a little 'flowery'.

The book starts with a short summary of the history of macrophotography. There then follows a section on the subject matter. This mainly details the ways to obtain the best photographs of arthropods and plants and fungi. After this there is a chapter on underwater photography. The book closes with a chapter on 'portraits' of insects (mainly close-ups of the heads) and a more abstract section on 'styles and patterns'.

There is plenty of material within the book to interest the entomologist; certainly the authors describe insects as 'the most photogenic... subjects in living nature'. Indeed some of the most beautiful photographs portray insects. However, some of the terminology is a little frustrating. Scientific names are used only sporadically. Hence it is not always easy to ascertain the identity of each subject. I was not familiar with 'elephant beetles', never mind 'pseudo-elephant beetles'! Similarly Scorpion-flies are referred to as 'little scorpions'. Nevertheless, the book does not purport to be an identification or taxonomic guide, and there is plenty of insight into metamorphosis and feeding behaviour in particular.

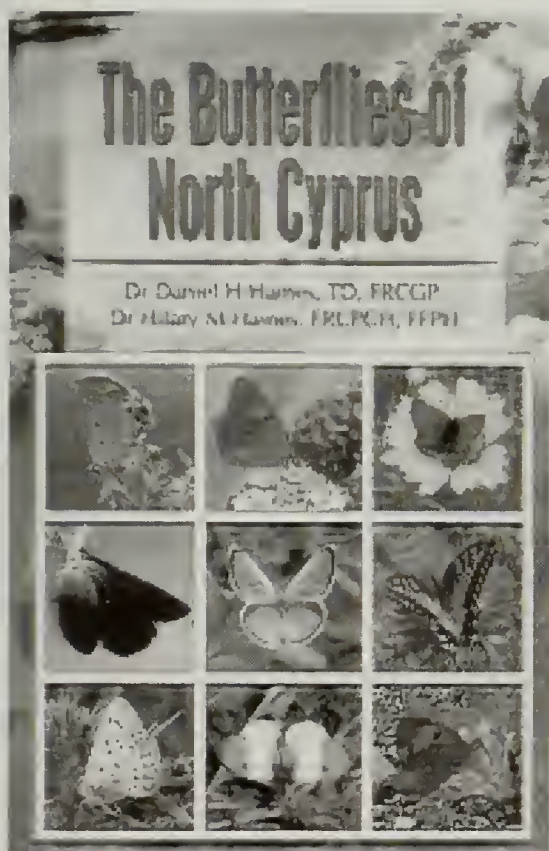
The photographs are certainly stunning. The book would grace any coffee table with ease. There is good variety in terms of subjects and colours. The book as a whole is well laid out. It is not a very technical manual. It seems to aim to stimulate and act as a starting point. However, it is a captivating start and may set others off down the road of photographing the tiny creatures around us. It is reasonably priced and worth dipping into – who knows where that may lead?

Phil Wilkins



The Butterflies of North Cyprus

by Dr Daniel H. Haines and Dr Hilary M. Haines, Spiderwize, London, 2010. ISBN: 978-1-907294-89-1. Available from Amazon and Bookshops. Recommended Price £9.99.



Cyprus is nicely positioned in the Mediterranean to enjoy a rich butterfly fauna. The Greek part of the island has been well-served recently with literature, including the excellent *Butterflies of Cyprus* by Christodoulos Makris. Despite covering the whole of Cyprus, this excellent tome struggled to cover the Turkish northern area of the island, due to lack of observations. The current slender booklet attempts to start to redress this imbalance. One of the reasons that the north is poorly studied, is the difficulty in visiting the territory until recently. The introduction to the book states that the north should hold good numbers of butterflies. It is less urbanised than its southern neighbour and agriculture is less intensive.

Although not resident in the island, the authors visit regularly. They maintain the national collections for North Cyprus and manage frequent

field studies. They are thus well placed to comment on the fauna. They also acknowledge help from other experts on Cypriot butterflies.

After some brief sections which include discussions on the flora and geography of the area, the majority of the book describes the species seen on the island by the authors. A useful account in these introductory chapters features a description of how the authors attract butterflies with fermenting fruit and beer!

Each species is illustrated by at least one colour photograph. These are quite variable in quality, however. Some of the set-specimens in particular are very blurry. These photographs could really do with replacing. It is a shame, as some of the photos are very good. The species descriptions are compact and clearly aimed at a British audience. Flight times and larval host plants are included for each species.

Overall, this is a compact little book, which is handy to carry in the field and is a useful introduction to a neglected butterfly fauna. The authors are clearly enthusiastic about the subject. Hopefully, it may help to stimulate further study.

Phil Wilkins

Dipterists Handbook (Second Edition) edited by Peter Chandler (with contributions by 42 other authors)

This Handbook provides a work of reference for everyone interested in the study of flies, both beginners and experienced dipterists.

As in the first edition great emphasis has been placed on the habitats and biological associations of flies. Among the authors are specialists in each field of study so it has again been possible to bring together a summary of the latest knowledge of all aspects of the biology of Diptera at the species level.

There are additional subjects not covered in the first edition including Forensic entomology and an explanation of the classification of Diptera and a bibliography of key works for the identification of both adults and larvae. Some specific habitat associations are covered in greater detail to reflect increased ecological knowledge of flies and the greater significance now being placed on some habitats in the conservation of Diptera. 525 pages with 32 colour plates and 45 text figures. **£ 46.66**

Members price £ 38.66

British Butterflies throughout the year by Peter May

This new book from the AES describes the adults of different species of British butterflies, according to the time of year they appear on the wing. Nearly all the 60 British species are illustrated. Focussing on encouraging an interest in entomology among the young, and the young at heart, there is a helpful calendar of flight times and a useful checklist to help you keep track of your observations. **£ 5.42**

Members price £ 4.22

Preparing and maintaining a collection of Butterflies and Moths

by P. May and M. White. A practical manual detailing the various methods used to prepare specimens for a collection, from killing methods, setting the specimens and repairing damaged ones, to storage and preservation, including pest prevention and cure. 21 pages. 4 figures and 5 plates. (2006)

£5.42

Members price £4.22

The Hymenopterist's Handbook by Dr. C. Betts *et. al.*

2nd edition dealing with the history of their families, classification and structures; natural history; studying, collecting, breeding, attracting and preserving Hymenoptera. Appendices include keys to the families. 214 pages with numerous tables, keys and figures (1986) **£ 11.23**

Members price £ 8.38

Revised Flight Tables for the Hymenoptera

Revised flight tables for the Hymenoptera giving, wherever possible, times, location, flower visits and some indication of distribution and abundance. 24 pages (1988) **£ 3.92**

Members price £ 3.17

A Coleopterist's Handbook

Edited by J.Cooter & M.V.L.Barclay The *Coleopterist's Handbook*, is now available as a fully revised and expanded fourth edition. Nomenclature has been brought inline with

current use, collecting/curatorial methods reflect best practice and plant/beetle and beetle/plant lists are included together. Recent additions to the British fauna, modern and traditional techniques are included. All advice and comment given in the book is based upon collective years of practical experience of both curatorial methods and field craft; beetle family chapters have each been written by an internationally recognised authority. 496 pages including 32 colour plates. **£ 50.90**

Members price £ 35.90

Host plants of British Beetles: A List of Recorded Associations

A list of a wide range of plants, in alphabetical order, together with the beetle species that have been recorded as being associated with them. 24 pages (1992) **£ 3.92**

Members price £ 3.17

A Silkmoth Rearer's Handbook by B.O.C. Gardiner

SPECIAL OFFER PRICE £ 8.61

No further discounted price available

Rearing and Studying Stick and Leaf-Insects by P. D. Brock

Specifically intended for beginners, although it is also suitable for experienced Phasmid enthusiasts, it is one of the few guides to rearing that features the majority of the culture stocks available, 22 species in detail. The informative text is complimented by 8 colour plates, 14 black and white plates and 29 figures. (New edition, 2003) **£ 11.73**

Members price £ 8.73

The Study of Stoneflies, Mayflies and Caddisflies by T.T. Macan

A comprehensive guide to collecting and studying the biology and ecology of these aquatic insects. 44 pages, 10 figures and bibliography (1982) **£ 4.20**

Members price £ 3.15

Breeding the British Butterflies by P.W. Cribb

A practical handbook covering all aspects of butterfly breeding, including general techniques, equipment and hints on how to breed each of the British species. 60 pages, 6 figures, 5 plates, Revised (2001) **£ 5.20**

Members price £ 3.85

Practical Hints for the Field Lepidopterist by J.W. Tutt

Written at the turn of the century, this book has been reprinted because of its scarcity and value to students of Lepidoptera. It gives a complete month by month guide to which species and stages of macros and micros to look for and how to find them. Also contains a biological account of the early stages and how to keep, rear, photograph and describe them. 422 pages. Hardback. (Reprinted 1994). **£ 23.15**

Members price £ 17.45

An index to the modern names for use with J.W. Tutt's

Practical Hints for the Field Lepidopterist by B.O.C. Gardiner

A valuable cross-reference guide between the scientific and English names used in the early 1900s and the present time. **£ 5.42**

Members price £ 4.22

A Guide to Moth traps and their use by R. Fry and P. Waring
The first sections deal with the measurement and properties of light leading into the types of lamp available and the electrical circuits needed to operate them. The next sections give details of the construction of the most popular traps used in the UK. The last half deals with the practical use of traps in the field including where and when to trap, limitations of traps and their relative performance. 68 pages, 21 figures, 15 plates (1996)

£ 7.42

Members price £ 5.62

The Amazing World of Stick and Leaf Insects by Paul D. Brock

A superb, comprehensive guide, for all those intrigued by these groups of insects. Topics covered include structure, fascinating facts, life history and development, defence behaviour, enemies, collecting, breeding (including trouble shooting), preserving, taxonomic studies, important collections in Museums etc. around the world and elaborate stories, beliefs and poems. Also outlines the major known species around the world on a regional basis. A section on Fossils is included. Includes a comprehensive glossary of the technical terms used in the description and classification of stick and leaf-insects. Hardback A5, 184 pages, 46 figures, 26 black and white plates and 40 pages of colour plates (containing 83 photographs and 4 drawings/paintings of insects and their habitats). (1999)

£ 18.26

Members price £ 13.46

Rearing Parasitic Hymenoptera by M. Shaw

This booklet provides information on the parasitic Hymenoptera to enable successful studies to be made of this little understood group of the British insect fauna. Details are given on the general biology of parasitic wasps, rearing principles, efficient rearing practices and detailed methods of dealing with adult wasps. 52 pages, 4 colour plates (New edition – 2001)

£ 6.42

Members price £ 4.92

Larval Foodplants of the British Butterflies by Peter May

A comprehensive compilation of the known larval foodplants of our native and immigrant butterflies. Also including "How to Encourage Butterflies to Live in Your Garden" by the late Peter Cribb 62 pages. (2003)

£ 7.92

Members price £ 5.97

The larger water beetles of the British Isles by Peter Sutton

For those who love the spectacular larger water beetles of the British Isles, this is the publication that you have been waiting for! It is the only modern publication with colour illustrations of all of our aquatic coleopteran megafauna and it provides the most up-to-date distribution maps revealing their current distributions. Jam-packed with fascinating details of their life-histories, this book covers 11 species including the 6 native 'Great Diving Beetles' and the 'Silver Water Beetles'. It is also copiously illustrated with text figures and has much additional information including details of observed climate-induced range changes and the conservation measures required to ensure their continued survival.

£ 11.90

Members price £ 8.90

Glossary for the Young Lepidopterist

£ 1.73

6 pages, 2 figures. (1951)

Members price £ 1.58

A Label List of European Butterflies

£ 3.17

20 pages. (Revised 1981)

Members price £ 2.67

Some British Moths Reviewed

Aid to the identification of some of the more difficult species. Reprinted from the *Amateur Entomologist* Vol. 5 (1941) and a *Guide to the Critical Species of Lepidoptera*, reprinted from *Entomologists' Gazette* 1969-72. 64 pages, 6 black and white plates, numerous figures (1985)

£ 5.17

Members price £ 4.07

Butterflies of Cyprus 1998 (Records of a years sightings)

by Eddie John

Observations of the 44 species of butterfly found on the island in 1998 including notes on each species and distribution maps. 46 pages (2000)

£ 4.42

Members price £ 3.87

Collecting Het.Bugs (Hemiptera: Heteroptera)

£ 1.78

12 pages (including 2 plates). (1946)

Members price £ 1.58

Collecting Clearwings

12 pages (including 2 plates), 4 figures. (1946)

£ 2.58

Members price £ 1.68

Collecting Lacewings

9 pages, 8 figures, 5 plates. (2nd edition 1976)

£ 3.17

Members price £ 2.67

An Amateur's Guide to the Study of the Genitalia of Lepidoptera

16 pages, 15 figures. (1973)

£ 3.17

Members price £ 3.92

Rearing the Hymenoptera Parasitica

£ 3.42

16 pages, 1 plate, 10 figures. (1974)

Members price £ 1.87

Rearing Crickets in the Classroom

12 pages, 2 plates. (1986) (Reprinted 1993)

£ 2.58

Members price £ 2.13

Guidelines for Entomological Site Surveys

Published on behalf of the JCCBI. 7 pages (2000) (Reprinted 2003)

£ 3.58

Members price £ 2.83

The Journal of the Entomological Exchange and Correspondence Club 1935-1936

An AES Jubilee Publication. Fascinating reprint of the very first volume of the AES journal. 100 pages.

£ 4.92

Members price £ 4.07

All the above publications sent post free to U.K. addresses. Outside U.K. please add 10% to order value for postage by surface mail. For postage by air-mail outside Europe please add 30% to order value. Please allow 28 days delivery.

Please make all cheques/postal orders payable to 'AES Publications' and send to:

AES Publications, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Telephone 01277 224610 • Fax: 01277 262815 • E-mail: aespublications@btconnect.com

NOTE FOR YOUR DIARY: EXHIBITION DATE SATURDAY 1st OCTOBER 2011

*Whether you're young or old, beginner or expert, there is something for everyone who loves bugs at the **largest** insect extravaganza of the year.*

Join us at Kempton Park Racecourse on Saturday 1st October.



- ◆ Over 100 dealers
- ◆ Caterpillars and Butterflies
- ◆ Praying Mantids
- ◆ Exotic Pets
- ◆ Bug Pottery and Toys
- ◆ Antique Boxes and Cabinets
- ◆ Insect Identification Guide
- ◆ Join Clubs and Societies
- ◆ Rare and Recent Books
- ◆ Meet other enthusiasts
- ◆ Stick insects
- ◆ Tarantulas and Scorpions
- ◆ Nets, Traps and Equipment
- ◆ Netting and Cages
- ◆ Mounted Specimens
- ◆ Leading Insect Artists

Kempton Park is situated under a mile from Junction 1 of the M3. Rail services operate to Sunbury Station, half a mile from the racecourse, from London Waterloo.

For further details contact the AES at:

PO Box 8774, London SW7 5ZG

or alternatively visit the Society's Website at

www.amentsoc.org

**AMATEUR ENTOMOLOGISTS' SOCIETY
ANNUAL EXHIBITION AND TRADE FAIR**

Saturday 1st OCTOBER 2011

11.00am - 4.30pm

**Kempton Park Racecourse
Staines Road, Sunbury, Middlesex**

HOW TO GET THERE



BY CAR

- From the M25. Exit at Junction 12 (M3) towards Sunbury.
- Exit the M3 at Junction 1 and take the A308 sign posted for Kempton Park.
- The racecourse is situated one mile on the left hand side.

BY TRAIN

- Two services an hour are operated from London Waterloo to Sunbury station by South West Trains. Journey time is approximately 40 minutes.
- For more information contact London Travel Information on 020 7222 1234

The Bulletin

of the Amateur Entomologists' Society

Volume 70 • Number 497

August 2011

CONTENTS

Editorial	127
Society Matters	128
Keen, D. Letter from Spain – 12th in a series – Drilid larvae identified	130
Harris, E.A. New discovery of the rare hoverfly <i>Parhelophilus consimilis</i> , Dip., family Syrphidae in mid-Wales	135
Partridge, R. <i>Acleris cristana</i> , W B L Manley and The Insect Room.....	137
Caswell, W. A true story	140
Weir, J.C. On the apparent attraction of two members of the Genus <i>Hepialus</i> (Lep.: Hepialidae) to tomato plants.....	141
Betts, C. The bioblitz experience.....	146
Newman, D. Some questions raised by butterfly observations in Central Brittany, July 2011	154
Gardiner, T. Nature's Epitaph	156
Keen, D. A very early Crimson Speckled Footman, <i>Utetheisa pulchella</i> (Linnaeus)	157
Godfrey, H. Calliphoridae – request for help.....	158
Harvey, M. iSpot and the AES	159
McCann, F. Chamomile Shark (<i>Cucullia chamomillae</i>) update.....	160
Wilkins, P. Special Focus: The Marmalade Hoverfly <i>Episyrphus balteatus</i> Degeer, 1776). Diptera, Family Syrphidae	161
Book Reviews	
<i>Photographing the Microworld</i>	166
<i>The Butterflies of North Cyprus</i>	167

ES 36 A

The Bulletin



of the Amateur Entomologists' Society

Volume 70 • Number 498

October 2011

NATURAL
HISTORY MUSEUM

22 NOV 2011

PRESENTED
ENTOM LIBRARY





000174482



Founded in 1935

The AES • P.O. Box 8774 • London • SW7 5ZG

www.amentsoc.org

Email: contact@amentsoc.org • bug-club@amentsoc.org

Officers of the Society

President: Peter Hodge

Secretary: Dafydd Lewis (secretary@amentsoc.org)

Treasurer: Peter May (treasurer@amentsoc.org)

Registrar: Dafydd Lewis (registrar@amentsoc.org)

Bulletin Editor: Phil Wilkins/Paul Sokoloff (bulletin-submission@amentsoc.org)

General Editor: Jacqueline Ruffle

Advertising Secretary: Peter Hodge (advertising@amentsoc.org)

Exhibition Secretary: Wayne Jarvis (exhibition@amentsoc.org)

Youth Secretary: Kieren Pitts

Conservation Secretary: David Lonsdale

Webmaster: Kieren Pitts

ICN Editor: David Lonsdale (icn@amentsoc.org)

Wants & Exchange: Peter May (newsletter-editor@amentsoc.org)

THE AES WORKS TO PROMOTE AND DISSEMINATE ENTOMOLOGICAL KNOWLEDGE AND TO
ENCOURAGE AN INTEREST IN ENTOMOLOGY AMONG THE YOUNGER GENERATION.

BULLETIN ADVERTISING RATES:

Advertising in the AES *Bulletin* is a cost effective way of reaching all AES members and many others who benefit from institutional subscriptions.

Full page £75 for each advert or £375 for six adverts in the same year.

Half page £50 for each advert or £250 for six adverts in the same year.

Quarter page £30 for each advert or £150 for six adverts in the same year.

NOTICE

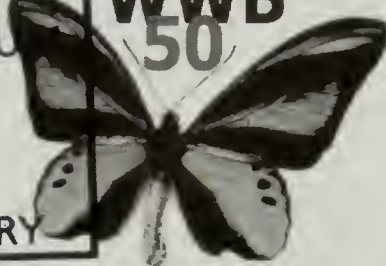
It is to be distinctly understood that all views, opinions, or theories, expressed in the pages of this Journal are solely those of the author(s) concerned. All announcements of meetings, financial grants offered or sought, requests for help or information, are accepted as bona fide. Neither the Editor, the Officers and Council of the Society, nor its Trustees, can be held responsible for any loss, embarrassment or injury that might be sustained by reliance thereon.

Worldwide Butterflies

HISTORY MUSEUM

1960 WWB 2010

50



Watch the ww b website

www.wwb.co.uk

for new developments

22 NOV 2011

PRESENTED
ENTOM LIBRARY



Light now
available
alone or
with the
**Moonlander
Moth Trap**

Moonlander Moth trap

Folds totally flat and is
contained in a
convenient slim
shoulder bag.
Very lightweight.

**The Moonlander turns the
principle of moth trapping
upside down!** Moths enter
from the bottom and cannot
escape through the top.
**Works as sheet and trap
combined.**

Better than traditional egg
boxes, moths prefer the new
**reticulated foam moth
shelters** and cone.



See www.wwb.co.uk for
prices and more.



Both trap and light are total innovations by Robert Goodden.
They are tried and tested in Europe and the tropics.
In good conditions the results are spectacular.

Worldwide Butterflies website offers **Livestock and Equipment for
breeding and study. Specimens for specialist collectors will be added as
available.** The system enables you to see exactly what is currently available as
the season changes. From time to time there are special **Sale Offers** of
equipment, books, livestock and specimens - an ever changing situation.

www.wwb.co.uk Add it to your **Favorites** - check it regularly.

ATROPOS ANTIQUES*

PURVEYORS OF FINE COLLECTOR'S CABINETS

*Many of you will have met us at the AES London Fair
where we regularly show entomological cabinets for sale*



- We are specialist dealers in fine collector's cabinets.
- We can offer a choice of at least 30 cabinets, varying in purpose, construction, quality and price.
- We can supply both restored and un-restored cabinets and will undertake to restore and paper cabinets for clients.
- We are always interested in the purchase or exchange of cabinets, with or without a collection.
- Callers to our showrooms are always welcome by appointment.
- We offer a specialist collection and delivery service throughout the UK and have full expertise in the safe transportation of cabinets and collections.

We now have a dedicated cabinet showroom in Hartland, North Devon, and are happy to receive visitors to view the stock of over sixty cabinets including all the famous makers names. Please telephone or e-mail if you wish to call. Hartland is famous for it's coastline and dramatic scenery and was one of the last known haunts of the Large Blue.

We are very keen to buy whole insect collections and collecting paraphernalia ancient or modern. Please contact George Morgan by telephone or e-mail.

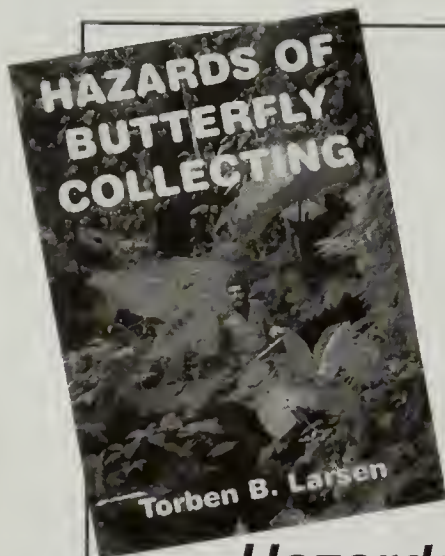
George Morgan

97, West Street, Hartland, N. Devon EX39 6BQ

T: 01237-441205/984 M: 07973 302190

E-mail: george@atropos.wanadoo.co.uk

* We are an independent dealership of 30 years standing and have no association with any similarly named business.



SPECIAL OFFER

£7.50 each

(inc. UK p&p)

£9.50 each (overseas)



Hazards of Butterfly Collecting

by Torben B. Larsen

Rearing Stick and Leaf Insects

by Ronald N. Baxter

ORDER YOUR COPY NOW FROM

Cravitz Printing Company Limited, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Tel: (01277) 224610 • Fax: (01277) 262815 • E-mail: CravitzPrinting@btconnect.com

Bulletin Cover



This month's cover picture shows the larva of the Cinnabar moth, *Tyria jacobaeae*, one of our colourful Arctiid moths, which feeds on Common Ragwort, *Senecio jacobaea*, as well as other wild and cultivated members of the genus *Senecio*. The larvae are gregarious and feed openly, displaying their warning colouration.

We have selected this species for our cover because its main foodplant, Common Ragwort, has once again been the subject of controversy in the news – and we explore this a little further in the Editorial.

The Cinnabar moth is widely distributed in England and Ireland, although less frequent further north. Like many of our moths, it has become less common in recent years.

The moth was originally called the Pink Underwing by Moses Harris (*The Aurelian*, 1766 and *The English Lepidoptera*, 1775) with the name Cinnabar first being used by Benjamin Wilkes (*One Hundred and Twenty Plates of English Butterflies and Moths*, 1773).

Photograph by Andrew Smith



Watkins & Doncaster

The Naturalists

Established 1874

Over 135 years specialising in the manufacture and supply of entomological equipment

- ✦ Variety of moth traps available to suit all uses
- ✦ Comprehensive range of butterfly and insect nets
- ✦ Microscopes and accessories
- ✦ Lenses, magnifiers and binoculars
- ✦ Boxes and containers for collecting and examining specimens
- ✦ Bumblebee nesters and bug boxes
- ✦ Bat detectors and mammal traps
- ✦ Breeding cages
- ✦ Books and charts
- ✦ Water nets and pooters
- ✦ Botanical equipment



Order online at www.watdon.co.uk



or call 0845 833 3133



Call for our free fully illustrated
colour catalogue

Watkins & Doncaster, PO Box 5, Cranbrook, Kent, TN18 5EZ

Tel 0845 833 3133; Fax 01580 754054;

e-mail: sales@watdon.co.uk



Ian Johnson

Natural History Books

(Pemberley Books)

Specialist in *Entomology* and related subjects

Also *Zoology, Ornithology, Botany* etc.

- CATALOGUES – Second-hand, Antiquarian and New books – free catalogues available on request.
- SPECIALIST BOOKSHOP at Richings Park, Iver, just to the West of London – easy to reach by car or train. Visitors are welcome to visit and view our stock, but please telephone first to confirm opening times.
 - * *By car:* only 10 minutes drive from the M25 via the M4 (Junction 5), or M40 (Junction 1). 15 minutes from Heathrow Airport.
 - * *By train:* 20 minutes from London Paddington to Iver Station on the Paddington-Slough *Thames Trains* service (2 trains every hour). We are 1 minute's walk from Iver Station.
- WEBSITE – view our stock on our website: www.pemberleybooks.com.
- BOOKS BOUGHT – We are always interested in purchasing books in our specialist field, particularly antiquarian, academic and scholarly works on insects and other invertebrates.

18 BATHURST WALK, RICHINGS PARK, IVER, BUCKS SL0 9AZ

Tel: 01753 631114 / Fax: 01753 631115 • e-mail: ian.johnson@pemberleybooks.com

The Bulletin

of the Amateur Entomologists' Society

Volume 70 • Number 498

October 2011

Editorial

With days growing shorter, and autumnal insects well on the wing, it is time for the entomologist to turn his or her attention to winter matters. After ensuring that over-wintering livestock is securely housed, there should be a reflection on the past entomological season, which may result in an overpowering urge to share your experiences with other entomologists. Here we can help by publishing your experiences, techniques, observations and notes in the *Bulletin*. Without your contributions there would be no *Bulletin*. Why not give it a try? If you are uncertain or nervous about seeing your contributions in print, the editorial team are there to help smooth the way! Contact us on bulletin-submission@amentsoc.org

The front cover of this month's *Bulletin* features the larva of the Cinnabar moth which feeds mainly on common ragwort, a native British plant. As many will realise, it is a brave editor who dares risk the mention ragwort in an editorial column, but there have been a couple of ragwort-related press stories this year which readers may find interesting. Please be assured that we are not opening the doors of the AES *Bulletin* to the bitter debates on whether or not ragwort is a truly evil plant – we try to remain neutral. Condensing the arguments to a couple of lines, ragwort is an attractive flowering plant upon which some 30 insect and 14 fungi species are dependant. It is also an important nectar source, particularly in mid-season, for many insects and other invertebrates. Entomologists and ecologists therefore tend to view ragwort as an important component of the natural environment. Unfortunately, the plant is also poisonous to livestock, and horses in particular can suffer serious liver damage if the plant is eaten. Thus those with an interest in horses (and also in selling herbicides!) view ragwort in a less favourable light. Horses, however, being tolerably sensible animals, will avoid eating ragwort in a normal pasture. The problem largely comes when horses eat hay contaminated with dry ragwort, although it is an offence under the Agriculture Act (1979) and the Feeding Stuffs Regulations (2000) to sell contaminated hay.

A reasonable resolution to these issues is advanced by DEFRA through the Ragwort Control Bill and its Code of Practice which seeks sensible



measures for control of ragwort where it is necessary whilst recognising the need to maintain biodiversity.

Would that it were that simple!

In recent months, Richard Benyon, MP for Newbury, and Minister for the Natural Environment and Fisheries, engaged with the ragwort debate through the well-known parliamentary medium of Facebook. Alongside a photograph of himself pulling up a hapless ragwort plant (and watched by a rather bemused-looking cow) he included the words *I hate ragwort. It may not be the issue of the moment but I am on the warpath for those who let this vile weed spread. Chief target at the moment is the Highways Agency* Unfortunately, his comments attracted a large number of critical responses including those from well-known ecologists, who challenged his grasp of the facts and drew his attention to government guidelines on the issue. After a brief exchange, Mr Benyon deleted the thread from his Facebook "wall".

Whilst readers may not be surprised at the relationship between government ministers and facts, it is encouraging to report on a ruling this June by the Advertising Standards Authority who upheld complaints against Monsanto, Barrier Biotech Ltd., Ragfork, The British Horse Society and Warwickshire Council for displaying inaccurate and misleading information on their websites and in leaflets about common ragwort. Some of these organisations have a commercial interest in ragwort through selling herbicides or ragwort removal tools. Ragfork, for example, claimed ragwort is*responsible for the deaths of up to 6500 horses and ponies in the UK each year* UK Government figures for 2005 record just 13 deaths.

One of the depressing consequences of ignorance about ragwort is the enthusiasm with which some Local Authorities and other land management authorities indiscriminately spray broad-spectrum herbicides on areas which contain yellow-flowered plants on the assumption that they are ragwort. Such destruction has already been reported at sites in Cambridgeshire and Norfolk, for example.

All is not bleak, as organisations such as Buglife, and Wildlife and Countryside Link are working with DEFRA and local councils on measures to safeguard biodiversity and limit the potential damage to wildlife.

Paul Sokoloff





SOCIETY MATTERS

SOCIETY ANNOUNCEMENTS HAVE NOW TRANSFERRED TO THE
NEW MONTHLY AES NEWSLETTER

BIG SOCIETY

As a non-partisan organisation (other than being in favour of insects and their conservation) we are intrigued to note that the ‘big society’ concept touted by one of the UK political parties is now being reclaimed by its main rival, who says it was originally theirs! Meanwhile, as a relatively Small Society, we are still trying to puzzle out what it might all mean.

We are of course always on the lookout for helpers and volunteers. In particular, as our Hon. Treasurer will be standing down in six months’ time, we would be very interested to hear from anyone who might like to take over that role (please see enclosed notice). Some knowledge of adding up, subtraction and long division would be advantageous. Knowing what ‘Big Society’ means is not a requirement. Expressions of interest should be emailed to secretary@amentsoc.org in the first instance.

We are also looking for an Editor for the *AES Bulletin* to share the work in the production of the *Bulletin*. Lots of help and support is available for this interesting post which involves liaison with authors and potential authors, editing submitted copy for readability, accuracy and “house style”, working closely with our printers and the satisfaction of seeing the finished product thump on the doormat! For those still on the career ladder editing experience can be a useful addition to the CV, and for those looking at a productive retirement it can be a rewarding activity. If you are interested in exploring this opportunity further, drop a line to our Hon. Secretary at secretary@amentsoc.org

SUBSCRIPTIONS 2012

A key aspect of running the society is determining the level of the membership subscriptions each year. Given that we aim to provide a gateway into entomology for as many people as possible, especially the younger generation, we need to keep membership subscriptions as low as we can, while ensuring that the periodicals pay for themselves and do not drain our limited capital resources.

The Registrar is pleased to announce that the membership subscriptions for the coming year, 2012 (which are now due – please see the yellow insert that accompanies this issue of your periodicals) once again **remain unchanged**. Given that all our periodicals – the *Bug Club Magazine*, the *AES Bulletin* and the *Entomologist’s Record* – are published six times a



year, and considering our growing list of member benefits (see list below) we think this is excellent value. (Whilst we like to collaborate rather than compete with other societies, we do like to note that our combination of journal quality and frequency and our member benefits mean that the AES is very well placed, to say the least, among British entomological societies and journals in terms of value for money).

By 2013 there will have been substantial increases in both printing and postal costs since the subscription rates were last reset, and we will need to review our membership fees for that calendar year (i.e. the year after next). This does not mean that individual membership fees for 2013 will necessarily increase, but some adjustments to how we produce the journals, and to postal rates, *might* be necessary at that time.

In the meantime, please renew your membership for 2012 NOW at the current rate (people who pay by standing order do not need to do anything, of course) and enjoy another year of membership of your Wonderful Society.

AES MEMBERSHIP BENEFITS – A SUMMARY

1. SUPPORTING ENTOMOLOGY – The AES is a charity, run by volunteers. Your membership fees and donations represent the major part of our funding, and go towards our work of promoting the study of insects and ensuring that an amateur viewpoint is represented in invertebrate conservation matters.

AES public benefits include two moderated forums which are open to all:

- Bug Club Forum <http://tech.groups.yahoo.com/group/bugclub/>
- Lepidoptera Breeding Forum http://tech.groups.yahoo.com/group/Breeding_UK-Leps/.

We also offer awards to encourage insect conservation (the Cribb Award) and educational projects (the Michael Majerus Grant).

2. PERIODICALS – in addition to their choice of AES periodical, members receive:

INVERTEBRATE CONSERVATION NEWS three times per year.

THE AES NEWSLETTER exclusively for members, includes news, events and wants & exchange advertisements (placing an advert is free). Sign up to the Newsletter at the website: <http://www.amentsoc.org/newsletter/signup>

(If you do not have email please write to AES Newsletter at PO Box 8774, London SW7 5ZG to obtain a postal copy).



3. MEMBERS ONLY AREAS on the AES (www.amentsoc.org) and the *Entomologist's Record* (www.entrecord.com) websites provide access to back issues, among other services.
4. AES MEMBER DISCUSSION FORUM <http://tech.groups.yahoo.com/group/aes/>
5. NETWORKING & EVENTS include:
 - The Oxford University Young Entomologists' Day each February
 - The Members' Day and AGM each April
 - The Oxford University Museum of Natural History annual visit each September
 - Other events organised throughout the year (e.g. in August 2012 we have a residential)
 - 'Bugathlon' at Wytham Woods Nature Reserve, in-between the Olympics and the Paralympics)
6. EXHIBITION AND LITERARY AWARDS
 - ANSORGE AWARD for the best junior member exhibit at the annual exhibition
 - BRADFORD AWARD for the best exhibit by an adult member
 - HAMMOND AWARD for the best article in the AES Bulletin
 - GARDINER AWARD for the best Bug Club Magazine article by a junior member
7. MEMBER DISCOUNTS
 - 30% off AES publications
 - 25% discount on the first year of Society of Biology membership
 - 30% off Royal Entomological Society publications
8. ACCESS TO AFFILIATE EVENTS
 - Full access to Royal Entomological Society library and events
 - Free access to the Entomology section of the Devonshire Association
 - Conchological Society of Great Britain & Ireland events
 - Quekett Microscopical Club events
 - Wildlife Gardening Forum membership
 - Access to events of the Selborne Society at Perivale Wood Nature Reserve



DATA PRIVACY STATEMENT

All personal information supplied to the Amateur Entomologists' Society is treated in accordance with UK legal requirements for data protection. The Society will not divulge personal information to any third party, except under legal obligation or with the express permission of the owner of the information. Currently, such information is used only for the purposes of administering the Society and the subscriptions that it receives. It could be used to publish subscriber / membership lists, subject to the express permission of each subscriber or member concerned, but there are no plans to publish any such list in the foreseeable future.



The AES Annual Exhibition – October 2011

by Paul Sokoloff, Dafydd Lewis and Jacqueline Ruffle

For many years, the AES Annual Exhibition has been by far the largest entomological “event” in the UK attracting visitors and dealers from all over the country, and increasingly from Europe as well. We have not been able to report on the exhibition for a little while but thought we would take this opportunity to review the 2011 exhibition whilst it is fresh in our minds. We hope it will revive fond memories for those who attended, maybe stimulate those who did not attend to come along next year and perhaps through the photographs to put a face to a well-known person or trader.

The traders and visitors to the exhibition expect well-run “show” with an atmosphere that is both relaxing and exciting. Few give any real thought to how such an exhibition is mounted and even fewer realise that the entire event is organised and run by a very small group of amateurs volunteering their services to the Society. As well as the organisational aspects, the volunteers have to grapple with an increasing volume of rules and regulations ranging from the ever-present Health and Safety legislation to the various conventions and rules that restrict the trade in endangered species and code of practice governing the welfare of livestock offered for sale. This small group of

unsung heroes is led by someone with the quaint title of “Exhibition Secretary” who undertakes the lion’s share of the pre-exhibition organisation, working with the venue owners, traders, insurers, members and a host of others to bring the show together. On the day he masterminds the event, organises the other volunteers and, of course, takes the blame for everything that goes wrong; if the caterer runs out of sandwiches or the coffee is lukewarm – blame the organiser! For a number of years now, this role has been undertaken by Wayne Jarvis,



Exhibition organiser Wayne Jarvis welcomes visitors



pictured above, and we take this opportunity to acknowledge the work he has done in making the exhibition the success that it is.

Visitors to the main reception desk have all sorts of queries ranging from the oft-repeated requests for directions to the toilets or cash machines, requests to pay late subscriptions, the "have you seen so-and-so and if not can you page them on the PA system" enquirers and, we think for the first time this year, a couple of "lost parent" enquiries. Whilst most large events make provision for finding lost children, it is a little unusual to have children asking us to find their parents! For most of the day, the reception stand was manned by Rob Ward who always came up with a smile and a helpful reply. Other volunteers are normally members of the AES or their press-ganged partners, and they scurry around before and during the exhibition sorting out problems, answering questions, manning the gates and turnstiles, policing the items on sale and generally being helpful. Although they would not want this mentioned, most of the volunteers usually miss out on the early bargains on offer from the traders as they are too busy during the opening hour of the exhibition! There are other heroes and heroines behind the scenes, and we must mention St John's Ambulance who lurk unseen in the First Aid room. We tried to get a picture of them but they were too busy to pose for the camera! A constant stream of customers with grazes, nose-bleeds, fatigue and a host of other problems (maybe even including damaged wallets) kept the team occupied all day. Without their efforts we suspect that the exhibition would look (even more?) like a battlefield!

Despite the time of year in which the exhibition is held, the weather has, over the years, been largely benign. Visitors must wait outside until

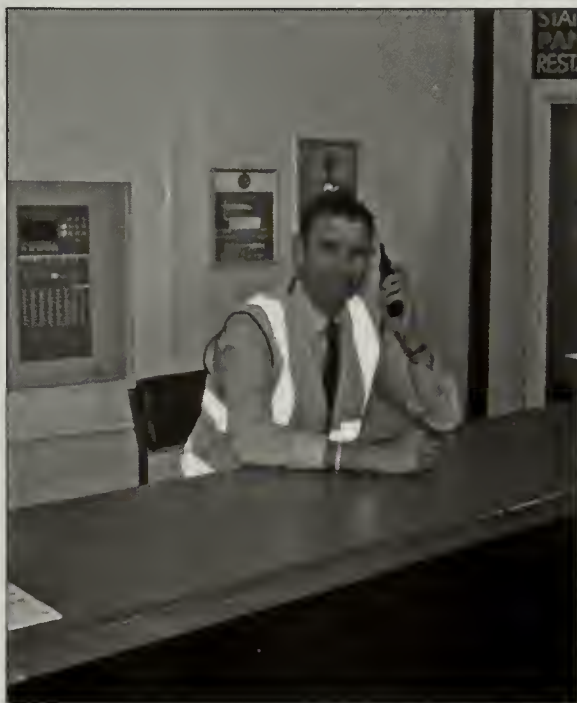


Waiting in the sun for the exhibition to open.



the 11.00 am opening time, with no shelter against the elements. This year the sun shone. It was a day on which October temperature records were broken in both England and Wales! Although the exhibition halls were a little warm at times, visitors were able to relax outside on the terraces or on the grass whilst recharging their batteries and consuming picnics or tempting morsels from the ever-popular “toasty” van parked in the grounds.

Despite the tough economic climate, nearly 100 traders, individuals and groups booked tables for the exhibition, in addition to those who were exhibiting. The range and type of traders has changed markedly over the years and we now have traders who cater for a very wide range of interests including the traditional sellers of specimens and livestock, booksellers, equipment providers, artists and illustrators with their artwork, jewellery suppliers and ceramics (most with an entomological theme). “Honorary insects”



Rob Ward mans the reception desk.



AES President Peter Hodge does not order an unhealthy burger!



such as spiders are well represented as are other invertebrate groups and a few reptiles. There was wide range of stalls from national and local societies and conservation groups as well as the AES and Bug Club stands, manned by Kieren Pitts and Dafydd Lewis. The AES team were joined by Sonia Copeland-Bloom promoting *Eddie the Earthworm*, her latest book on mini-beasts published by the AES. Always popular is the Wants & Exchanges table, organised and run by Peter May, where members can dispose of their surplus material and donate a small proportion of the proceeds to the society. Sheila and Matthew Cravitz, together with Andrew Smith represented our printers and Publications Agent and they brought along the whole range of AES publications for sale. Stallholders were drawn from a wide geographical range within the UK, a couple from France and one equipment supplier all the way from Cracow in Poland. Amongst them are both well-known and less well-known companies and individuals, and some of them agreed to be photographed for this report!

Aside from the serious business of buying and selling, the exhibition has always been a great social occasion where new and not so new friends can meet, often by chance, to exchange the latest news. Although there were scrums around some of the dealers that would rival those seen at this year's Rugby World Cup, the exhibition floor was dotted with small groups of entomologists, deep in conversation, and oblivious to the mini-traffic jams they were causing.



The exhibition in full swing



Kieren Pitts and Dafydd Lewis at the AES stand.

We asked Jacqueline Ruffle to pen a couple of paragraphs on her impression of the exhibition:

Impressions of the AES Annual Exhibition 2011

By Jacqueline Ruffle.

As the temperature reached 27°C. and the sun shone steadily over Kempton Park, the Annual Exhibition got underway. During the day, multitudes of entomologists (amateur and professional) entered the Racecourse to look around the stall-holders' tables, cast an eye at the exhibitions and meet up with fellow enthusiasts. The general impression was that there were fewer visitors than last year; probably due to both the lovely weather encouraging entomologists into the field and the pressures of the current economic situation. Nevertheless, almost all the people I spoke to seemed to have had a thoroughly good day, whether trader or visitor.

From the right hand side of the hall, the chirping of field crickets was audible above the general sound of voices and many people could be seen carrying boxes ranging from a few cubic centimetres upwards; said boxes containing everything from millipedes to beetles, stick insects, larvae and 'roaches. Three people with centipedes commented that there was more livestock available this year compared to last year and a young girl told me that her highlight of the day had been holding a stick insect.



Interest in the livestock sales.

In addition to the many livestock suppliers, there were people selling books, stalls selling photographs, entomological equipment, pottery, cabinets and microscopes. Most stall-holders said that sales had been reasonable, if a little down on expectations.

When I asked people what they thought could have been improved, the comments were that the food available on the first floor was disappointing and expensive and that there should have been a reduced entry fee for the disabled. My son Douglas (14) said that we should have had a quiz or a craft activity. These are issues that we can look at before next year's



exhibition. The social aspect was mentioned by one man who said that he loved catching up with fellow entomologists and meeting up with people, many of whom he may not have seen since this time last year.

The overall impression was that it had been a successful day; the remarks I received including "great", "marvellous" and to the question, "will you be here next year?": a resounding "yes"!

We asked Dafydd Lewis to take a look at the member's exhibits for us:

Members Exhibits

By Dafydd Lewis

Junior exhibits

Getting younger members engaged with entomology has been the main aim of the AES from its beginnings in 1935, although 17 years later Leonard Tesch, the Society's founder, was to write: "I had a mild surprise at the outset when I found that instead of the schoolboys whom I expected to be interested, men older and wiser than myself came rolling up!"

Nevertheless, younger members have always played an important role in our society, and it is pleasing to note that these days junior members are on the increase and continue to bring excellent exhibits to the annual exhibition.



Judges in action – Peter Hodge, Colin Hart and Dafydd Lewis

The Ansorge Award is presented to the junior exhibit regarded by the judges as 'the best', but choosing a 'winner' from a feast of plenty again this year was no simple matter. It was decided to award First Prize to **Daniel Osmond**, for his excellent exhibit of McLeay's Spectre stick insects. Daniel's illustrated exhibit described how to look after and breed phasmids, with many photos of different species as well as live specimens perching on plants sitting on the exhibition table. Daniel is a regular participant at the exhibition and first joined the society in 2008, when he attended a Bug Club event at the Royal Horticultural Society at Wisley.



Daniel Osmond's exhibit.



Ozzie Mead's exhibit.

We had not anticipated the need to award more than one first prize! However, young **Ozzie Meads** (aged 7) turned up with a great display comprising his insect collection housed in household and office equipment, all adapted to entomological purposes. Ozzie's enthusiasm for insects was originally stimulated by his uncle, who gave him a male stag beetle *Lucanus cervus* – an example of how a little thoughtful encouragement from an adult can go a long way.

Sam Baylis exhibited some very impressive (as usual!) photographs of butterfly lifecycles. **Rachel and Magnus McLeod** broke new ground by holding a pinning workshop as part of their exhibit – a great idea. A sweet was offered as a prize for a successful pinning! Rachel and Magnus also brought along some live roaches to handle, and specimens of scarabs and some native species already pinned by Rachel. This exhibit was very much 'in the spirit' of the AES, we felt.



Exhibits by Theo Tamblyn, and the two brothers Oliver (age 7) and George (age 9) Spence, were determined to be 'highly commended'. **Theo Tamblyn's** display covered four species of invasive ant and discussed the reasons for their success in an alien habitat. The species covered were the Pharaoh Ant *Monomorium pharaonis*, the Argentine Ant *Linepithema humile*, the species *Lasius neglectus* and the Red Imported Fire Ant *Solenopsis invicta*. In addition to a description of each species, and what made it a successful as an invasive, Theo concluded that large-scale co-operation is the most useful trait. The display was illustrated with Theo's own excellent watercolours.

Oliver and George featured different insect collecting methods in their exhibits, with Oliver focusing on pitfall traps. They showed drawings of equipment and Oliver brought along a pitfall trap to show us.

The adult exhibits

David Oram was this year's winner of the Bradford Award, for his very well presented exhibit 'Some Coleoptera from Mozambique, KwaZulu-Natal and Swaziland'. This included some set specimens and a map and photographs of the locations where they were found, along with photos of some delightful mamba snakes!



Part of David Oram's exhibit



The exhibits by Richard Mandziejewicz and Nick Holford were determined to be Highly Commended for the Bradford Award. **Richard Mandziejewicz** brought along a goodly number of very interesting varieties of different species of marbled white butterflies *Melanarga* spp. **Nick Holford** exhibited an interesting longhorn beetle he found while holidaying in the south of France during late April and early May this year. Nick had identified the beetle as *Morimus asper* (Sulzer) using the key to European Longhorn beetles by Bense, who quotes 2 species in the genus, *Morimus asper* and *Morimus funereus*. The exhibit displayed the specimen, some photographs of the location and the specimen, details of how to tell the 2 species apart, plus information about their biology and distribution, including 2 maps, along with details of some British records. A fuller account of this exhibit will appear in a future issue of the *Bulletin*.

Andrew Halstead showed a single live scorpion found at the Royal Horticultural Society's Garden at Wisley, Surrey in September. The scorpion was found in a cold frame close to some glasshouses, one of which is used as a quarantine house for new plants. In late May 2011 some plants of South African origin were put in the quarantine house and it is possible that the scorpion may have arrived with one of those plants. Andrew also brought along a female *Apethymus filiformis* (Klug), one of two species of British sawfly which unusually emerge in early autumn. The specimen was found under an oak tree at the Royal Horticultural Society's Garden at Wisley, Surrey, in September.

Roy McCormick once again exhibited interesting examples of moths from Devon, including for example a melanic form of the double-striped pug, *Gymnoscelis rufifasciata*. **Jacqueline Ruffle** displayed a rolling slide show describing her recent visit to Guatemala where she followed in the footsteps of entomologist George Champion (1851-1927), who collected 17500 beetles during his lifetime, all of which are now in the Natural History Museum, London.

Henry Berman brought along a very interesting exhibit showing a wasp's nest, wasp specimens and a photo of himself hanging out of a first floor window to examine a wasp's nest! Henry's plea is to treat these heroines of conservation with kindness and respect, because social wasps are very much maligned. Without them our woods, orchards and hedgerows would be denuded of their leaves and would subsequently die. Social wasps feed their young on millions of pests that would do this – so, social wasps are friends, not enemies.

Alan Rix brought along an exhibit on behalf of the British Plant Gall Society, which was formed in 1985 to promote the study of plant galls



and their causes. The central part of Alan's display this year showed some of the galls found on herbaceous plants. The formation of the Society 25 years ago by Fred Stubbs was also depicted on the display, together with details of the three plant gall publications published this year. There was a slide show of galls which included closeup images of some of their parasitic wasps. Examples of galls found during the week of the exhibition in the London Borough of Hillingdon were also exhibited.



The AES Publications team Sheila and Matthew Cravitz with Andrew Smith



Sonia Copeland-Bloom & Eddie the Earthworm



AES Treasurer Peter May selects a specimen



Colin Hart & Bernard Skinner enjoy a chat



Paul Waring and Andrew Smith confront the photographer.



An impressive stag beetle sculpture with Laura Bower from the Peoples Trust for Endangered species



Spiders have their fans as well - Angela Hale, Secretary of the BTS



Bookseller Ian Johnson (Pemberley Books) - the only quiet moment of the day!



A little later - the siege of Pemberley Books



Bookseller David Dunbar (Aurelian Books) with some Frohawk treasures.



George Morgan has a cabinet for all occasions!



Nets ahoy - B&S Entomological services out to net some customers.



Robin Ford of W&D before the crowds descend!



Rafal Ptak of the Paradox Company – all the way from Poland!



The Bugfest team and their stand.



Mark Tunmore and the Atropos stand.



Artist Richard Lewington and some of his work.



Goliath, Vanilla and Palm Oil

By John Woolmer

Fig Tree Cottage, Roecliffe Road, Cropston LE7 7HQ.

In Chaos Theory, it is said that one butterfly flapping its wings in South America can trigger a hurricane in Africa. Small actions can have dramatic consequences.

Nathan was the local chief for the Walubu tribe who inhabited much of the mountainous area above Papua New Guinea's coastal area somewhere between Lae and Popondetta. Recently their peace had been disturbed. An Australian logging firm had arrived in the area and was proposing to cut down much of their traditional forest area where they hunted wild pigs and Birds of Paradise. They were offering a lot of money and a replanting scheme. They were evidently looking for places to grow the oil palm in a commercial scheme.

Nathan was much perplexed; the Australians were persuasive and his people were poor. Recent attempts to grow and harvest vanilla had proved difficult and had brought little financial benefit. Before he came to a final decision, and the burden of decision making rested with him alone, he had a visit from his spiritual leader the local Bishop.

He sat with the Bishop, outside his house, under the shade of a fine mango tree. A very large brown and golden yellow butterfly came into his garden and started to flutter around some *Aristolochia* vines. The Bishop was quite excited:

"Look at that magnificent butterfly. She is looking for young leaves to lay her eggs on your vine. I am told that the eggs are the largest in the world of an insect. Here is your answer. We could set up a butterfly farm. There would be a good market for both dead specimens and live pupae of that wonderful butterfly. There is a firm lower down at Bulolo but I don't think anyone is supplying them with Goliath. We could capture the females and get them to lay in captivity. We could look for eggs in the forest clearings and bring them in for protection; we could look for larvae and pupae. We would release one in two of those butterflies which we had reared back into the wild. In that way, populations should increase while we would have plenty of material to sell".

Nathan was excited. His problem was solved. Very quickly, the commercial butterfly trading station, which already existed in Bulolo could be contacted by the Bishop. Bulolo was en route to Lae from where their butterfly cargo could easily be exported. The Bishop continued speaking about the decimation of the Forest around where he lived in Bulolo. Pine plantations were rapidly replacing the native forest trees with



disastrous effect on the flora and fauna of the area. The Bishop besought his loyal chieftain to resist the short term enticements of the commercial planters.

"Think what it will be like in twenty years time. The Palms will have finished production and you will be left with a tropical desert where they have been. It will take years for the ground to recover and the forest to grow back".

The Bishop left feeling that his pastoral visit had been unusually productive. As he was leaving, Walt Gilchrist and his fiancée Sharon arrived. They were intent on clinching the deal for the logging company. They had been staying, for a while, in the old hotel in Bulolo and the Bishop recognised them. He gave Walt a warning look; but said nothing. Walt had not been best pleased when his company seconded him to work in PNG. He thought that it was a strange country full of weird rituals and poisonous snakes. He was growing to like the place and had set up a number of commercial deals with local chieftains. He knew how to play them along. He was very adept at making his offers gradually more enticing. Sharon was a considerable asset. She was a horticulturalist. Walt had told her to discover everything that she could about growing vanilla—an important cash crop in PNG and a potential sweetener of difficult situations. He became very good at showing the chiefs how their village prosperity could improve if they got properly into the commercial growing of vanilla—white gold as he called it.

Walt was in expansive mood. He increased his previous financial offer and also said that his firm would also build a primary school for the village children. He presented a vision that was persuasive and a village vista that would be largely unaltered. His help would be immediate; he would also make sure, with Sharon's assistance, that the villager's vanilla plants flourished and that the valuable product had a proper commercial outlet. While they were drinking coffee under the chief's mango tree, a large green and yellow butterfly drifted by quickly followed by another one. They were pursuing one with even larger butterfly with black and gold wings that the chief had seen earlier when the Bishop had been visiting him.

"How beautiful" said Sharon "What is it?" The chief nodded and replied. "Very beautiful; they are the male and female of the Goliath Birdwing. Apparently it is the world's second largest butterfly. It is quite rare; it is part of our PNG heritage." "Would it be affected if Australian Trans-loggers replaced much of the forest with the Oil Palm?" asked Sharon. "Probably" said the chief "But we cannot be sure. He stared rather forlornly at the courting butterflies. Then he added "But we do need a school. Our



children have to walk for over an hour to get to school. Many of them don't bother to go." He was already beginning to forget the Bishop's visit.

Sharon got up and followed the Birdwings in their mating dance around the chief's mango trees; she was thrilled to see them at such close quarters. Two males were competing for one female. They flew great distances but always came back near the Mango trees and the *Aristolochia* vines. Sharon watched them for about ten minutes. She was entranced.

Soon afterwards Walt said that it was time to go. He and Sharon drove down to Bulolo. They had a nice old hotel to stay in with a fine view. Walt planned to return the next day and put a bit more pressure on the chief. He had a few more sweeteners to offer – Australian Trans-loggers – needed that land, very badly. Sharon was uncharacteristically, silent. "When I go back tomorrow" Walt said "I will go on my own. I don't want any more of your sentimental conservation stuff getting in the way of progress both for the village and for my firm." Sharon remarked that she was always interested in his offers to help the villagers grow vanilla better. That was something that with her experience in horticulture, she knew that she could help with.

Their relationship was clearly going through one of its fragile periods. Despite Sharon's conciliatory remark, Walt brooded in a sulky silence. Walt was true to his word. He left early the next morning to make his final, even sweeter, offer to the chief. He knew that their diet was pretty monotonous and he was going to offer to establish a chicken farm to improve their supply of eggs and protein. Sharon felt rather depressed; there wasn't much to do in Bulolo and she was beginning to feel out of sympathy with Walt and his single-minded commercial drive. She walked around the town. She was surprised to find the butterfly trading centre. She talked to the people running it. They were short of really good material. Some villages, higher up in the mountains, supplied them with the much sought after *Papilio weiskei*. *Weiskei* was quite small but had pink, purple and green patches of colour on its wings which made it a candidate for the most beautiful butterfly in the world. But what the trading centre needed was a regular supply of Birdwings. These were the butterflies that were in demand both as pupae for butterfly farms and set specimens for collectors.

Sharon was impressed by their commercial arguments. They paid the farmers well; the farmers looked after the land and farmed the butterflies taking care not to take too many butterflies out of the system. They had to conserve the butterflies. With skilled conservation they could increase the number of butterflies which emerged from a typical laying of a hundred eggs from nature's five or six to a healthy twenty or thirty which



allowed for plenty to be sold and plenty to be released back into the wild.

After she left the trading centre, Sharon noticed the Diocesan Office and the Bishop's house. She went in and asked to see the Bishop. Not being a churchgoer, she knew little about the etiquette of making appointments nor was she overawed by his purple shirt. She told the Bishop about the purpose of Walt's visit and his return to the village where they had met yesterday. She also mentioned that she had a degree in horticulture could perhaps stay on in the Wau area and supervise the villagers efforts to grow vanilla. The Bishop was excited at this idea; but then he grew quite animated. "This logging must be stopped. Thank you for coming to advise me of the urgency."

The Bishop drove up the mountain road, accompanied by his driver. The Bishop was trying to think how he could improve his scheme. He wanted to make it more attractive to the chief. He was approaching Wau which was the only town on their route when the Bishop saw a vehicle off the road deep in a ravine. It clearly belonged to the Trans-logging company. He stopped his car and got out to investigate. The driver was groaning; apparently, trapped in the front seat. He couldn't speak very clearly. But two words were repeated over and over again "Rascals, Roadblock, Rascals, Roadblock....." With some difficulty, the bishop and his driver climbed onto the back of the truck, broke the rear window with the Bishop's crook, cleared the glass and then set about extracting Walt from the front seat. The two front doors were irrevocably jammed in the side of the ravine and the rear exit was the only possible one.

Eventually, Walt was extricated from the place where he had been trapped for some hours. He didn't seem to be physically hurt. Walt thanked the Bishop and explained that he had swerved to try and drive round the road block set up by some of the well-known rascals from Wau. He had feigned being dead and the rascals had long since left the scene of their crime. Walt then admitted that his destination was the village where they had met briefly on the previous day. The Bishop, to Walt's surprise, agreed to take him there. The chief was amazed to see them both back so soon and even more amazed when he heard of Walt's rescue. Walt repeated his offer of the previous day. He increased the financial offer – including a large gift to something that he called the Chief's Discretionary Fund. In his pain and distress from the accident, he forgot to mention the chicken farm.

The Bishop told the chief about all the problems in the Bulolo area and said that there had been little long term gain for the tribes who had owned the surrounding forest. He also said he thought that he had found



someone who would supervise their vanilla project. "Such people are hard to come by" he added "and because of the potential value of a good crop absolutely essential". The Bishop also reminded Nathan of the benefits that the church had brought, which included, freedom from superstition, polygamy, cannibalism and witchcraft. A closer partnership with the Diocese could do nothing but good for the chief's village. The chief nodded. "You speak well. My grandfather knew the taste of human flesh. It is good that those days are past".

The chief said that he needed a while to think about it. He needed to discuss all these things with some of his neighbouring chiefs and with the headmen of his largest families. He gave the travellers some food – Taro, Sweet Potato and a sharp tasting fruit, called Pomelo, that looked like a pear and tasted more like a grapefruit.

They drove back. Below Wau, the Bishop stopped to inspect Walt's vehicle. He said he knew a firm in Bulolo who had contacts in Lae who would extricate the vehicle. When they were nearly back, Walt asked the Bishop, quite casually, "Why did you drive up again today? After all you'd made a pastoral visit only the day before". He looked, quizzically, at the Bishop. The Bishop smiled and replied "God moves in mysterious ways. I just received a compulsion to go".

Walt had a strong sense of who was behind that compulsion. He returned to the hotel in a very bad mood. His neck had become very stiff and his back felt as if he was suffering from whiplash. Several vertebrae felt very sore and quite stiff. He told Sharon about his strange day and then said "The Bishop mentioned that he had found someone who had offered to help with the vanilla project. That's a bit of a coincidence. Did you go and tell him about my return visit?" Sharon tried to explain about her visit to the butterfly centre and how her views were now swinging away from commercial oil palms and towards conservation. In a conciliatory gesture, she offered to massage his stiff neck and try to loosen the vertebrae. Walt wasn't up for any sort of conciliation. He was a blunt man and he sensed the way in which the wind was blowing. "If you've joined God's side you'd better go and ask God to shelter you. We are through; I've still got the Devil's work to do."

Sharon packed and left almost immediately. Before she left, she paid her share of the hotel bill. She felt relieved. She had drifted into the relationship with Walt on the back of a broken university romance. It had never seemed quite right. She walked round to the Bishop's house and explained her new predicament. He smiled and said that he needed a secretary. He continued by saying that she was appointed with immediate effect. Accommodation and food would be provided, here, to supplement



the necessarily meagre salary. Sharon quickly earned her salary mainly by organising a number of vanilla projects around the area. She also organised the marketing of the precious product in Lae and made sure that the local farmers received a proper remuneration. She made links with the Butterfly Trading Centre and, within a few months, the next generation of *Ornithoptera goliath* was being both harvested and conserved. This befitted both the Trading Centre and the Chief's villagers.

Walt didn't even attempt to revisit the chief. He got his car extricated from the ravine; faxed his company with the news of the setback and looked for other areas of PNG where he could plant the Oil Palm and other commercial Pine trees. His bosses were surprisingly sympathetic. Apparently, they were having a lot of trouble with their schemes near Poppondetta where the even larger butterfly *O. alexandra* was threatened by their activities. The voice of conservation was growing ever louder!

For Sharon, the visit to the chief was life transforming. She became fascinated by the whole conservation issue as well as becoming one of the country's leading experts on vanilla. She also started to take instruction in the faith. She was impressed with the unselfish work that she saw being done by many of the missionaries. Some years later, she met and then married one of the Wycliffe Bible Translators. They set out to work in a very rural area where another of the Birdwings called *O. paradisea* was to be found. Her favourite was always Goliath as he had been instrumental in freeing her from Walt's driven commercialism which had then opened her eyes to a greater and more wonderful world. She always felt that it was somewhat ironical that Walt had made her study the growing of vanilla which he had assumed would further his negotiations with local villagers. In practice, it was vanilla which showed Sharon a means of escape from an unsatisfactory way of life into something much better!



Small Copper var *caeruleapunctata*

by John Woolmer

Fig Tree Cottage, Roecliffe Road, Cropston LE7 7HQ.

I have observed five discrete colonies of the Small Copper butterfly around Bradgate Park, Leicester. All are third generation and the vast majority display the blue spots of the *caeruleapunctata* var. Has anyone else observed this phenomenon? Is it more common in the autumn? Has something happened this year?

Yet another “Lady” entomologist from the past

by Paul Sokoloff

4 Steep Close, Green Street Green, Orpington, Kent BR6 6DS.

In the April issue of the *Bulletin* I wrote a short article on the entomological publication of Lady Ellenor Fenn (Sokoloff, 2010). The stimulus for this article was an earlier piece on another female entomologist, Lady Eleanor Glanville (Loven, 2010). At the end of the article I asked the question (to which I had no answer!) “... *I wonder if any other titled ladies wrote books on entomology?* Unsurprisingly, there was no response forthcoming to this question. I had intended to let the matter rest there but . . .

In the Summer of 2011 I was browsing through some second-hand books when a slim volume caught my eye. A faded purple/brown pebble-grained cloth cover was embossed with a design on which the word “entomology” could just be seen. I turned the book over to find that the front cover was stamped in gold with the same design, which featured several insects and grasses very much in the Victorian style and bearing the title *Entomology in Sport*. An unfamiliar title always quickens the pulse of an entomological book collector! The title page read *Entomology in Sport and Entomology in Earnest* By The Honorable Mrs.W & Lady.M. Other than the publishers name (the well-known Paul Jerrard) there was no date or other indication as to who these titled ladies were. Turning the page, there was a lovely hand-coloured frontispiece featuring a number of accurately depicted insects dancing around a flowering grass (a children’s book!) and a second title page featuring instantly recognisable miniature paintings of butterflies, moths and other insects together with a two types of net, a killing jar, and store-box. This title page was slightly different, reading “*Entomology in Sport* By two lovers of the science, to which is added *Entomology in Earnest*. (Figure1).





Figure 1. Frontispiece and second title page of *Entomology in Sport and Entomology in Earnest*.

The next page carried a short poem surrounded by a painted wreath headed "Dedication to H.K." The short preface explains that the book is, in fact, two books in one intended for the "... young or the comparatively uninstructed reader...". The authors were clearly uncertain about the success of the book for the preface ends with a charming paragraph:

It now, after the manner of the emerging Gnat, rises tremblingly on the trouble waters – of Type; and awaits the sentence of – it is to be hoped – an indulgent Public, either to sink and be drowned in Oblivion, or to "come out" successfully, flutter awhile in the sunshine, and enjoy its "little day".

The book is printed on thick paper, edged with gold leaf. The first part, *Entomology in Sport*, is a 16-page poem introducing a range of insects, their interactions and habitats illustrated by 33 miniature paintings and vignettes most being recognisable as actual insects despite their small size. The second part, *Entomology in Earnest*, runs to 48 pages, without illustrations, and takes the form of a dialogue between a novice entomologist, Eugenius, and an experienced teacher, Sylvius. The dialogue covers a range of entomological topics such as physiology, ecology, communities and collecting. It is charmingly written and remarkably accurate for a children's book.



Unfortunately, the bookseller must have noticed my trembling hand and sagging jaw and suggested an eye-watering price for this little book, but after some hard haggling I left clutching my purchase with a lightness of step (and a lightness wallet!).

So who were the Honorable [sic] Mrs.W and Lady M? My usual first port of call (Freeman, 1980) provided, after much searching, a vanishingly brief listing but did give a publication date of 1859. After much further sleuthing – during the cold and rainy time we describe as the English Summer – the mystery was unravelled. In fact the two ladies were sisters. They were born in what was then known as Kings County (now Co. Offaly), Ireland at Ballylin. Their parents were the Reverend Henry King and his wife Harriette whose father was John Lloyd, a member of the “landed gentry”. The mystery of the dedication, “to HK” remains unsolved, as both their parents had the initials HK! The Lloyds owned Ballylin, a large country house in Kings County, and were well connected with the scientific community of the time. Little is known of the Reverend King’s older daughter, Jane King, but in 1853 she married Sir William Vesey Ross Mahon who gained the title 4th Baronet Mahon (Montgomery-Massingberd, 1976). Jane therefore became Jane Mahon and as a result of her husband’s title was entitled to be known as Lady Mahon (Lady M!) As well as co-authoring *Entomology in Sport*, she managed to produce nine children, all but one of whom survived into adulthood. Jane died on 7th June, 1895, two years after her husband.

The youngest sister, Mary King, was very well known and distinguished both in her life and in the manner of her death! In her early years, Mary was privately educated and spent much time at Ballylin where she assembled her own scientific and natural history library, and began drawing natural objects. The family were close friends with William Parsons, the 3rd Earl of Rosse who lived nearby at Birr Castle. Parsons was a noted astronomer and built the “Leviathan of Birr” which, until 1919 was said to be the largest reflecting telescope in the world (Creese, 1998). Mary documented the construction process and made many observations through this telescope. In December 1854 she married Henry William Crosby Ward, son of the 3rd Viscount of Bangor. Although he was a younger son and without a title, he was entitled to be called The Honourable Henry Ward and Mary became the Honourable Mrs Mary Ward (the Hon. Mrs. W!). Henry became the 5th Baron Bangor, and the 5th Viscount Bangor of Castle Ward, Co. Down, in 1881 after Mary’s death.

Mary, as well as producing eight children, six of whom survived to adulthood, continued her studies and illustrations, publishing many pamphlets privately. Of particular interest is a privately produced work *A*



Windfall for the Microscope, which described her observations on the development of caddis flies. This was followed, in 1857, by another privately produced book, *Sketches with the microscope*, which was later published commercially under the title *Microscope Teachings*, which included many of Mary's detailed drawings. At the same time as producing *Entomology in Sport* she also published a book called *Telescope Teachings* based on her work with the great telescope. It contains the only detailed observations at the time of Donati's Comet.

It should be remembered that publishing in a scientific field was almost impossible for a woman in Victorian times. Mary was one of only three women given the privilege of receiving copies of *Monthly notices of the Royal Astronomical Society* (and one of the other two was Queen Victoria). She was also able to visit and made detailed sketches of the Royal Observatory at Greenwich in 1862, a considerable feat, as women were banned from the Observatory at that time.

Much of her scientific writing was carried out at Castle Ward, which passed to her son Maxwell Ward. On his death in 1950 the castle was acquired by the National Trust who used her detailed drawings and sketches of the castle as a basis for recent restoration work and which, to this day, has displays of her books, illustrations, slides and instruments. Of incidental interest, Mary's great grand-daughter, the Honourable Sarah Ward is an actress, author and illustrator best known by her stage name, Lalla Ward, and who played a character called Lady Romana in the television series *Doctor Who*.

The manner of Mary's death was also remarkable. On 31st August 1869, she was travelling with her husband to pay their respects at the grave of her earlier mentor, Lord Rosse (William Parsons) who had died two years earlier. They were travelling in a steam-powered automobile that had been built by William Parsons and his sons. The vehicle lurched on a bend in the uneven road, and Mary was thrown from her seat onto the road, breaking her neck. She thus has the dubious distinction of being the first known fatality of a motor vehicle accident.

Four "Lady" entomologists from the seventeenth, eighteenth and nineteenth centuries have so far "come to light". Lady Elleanor Glanville, Lady Ellenor Fenn, the Honourable Mary Ward and Lady Jane Mahon. All share a privileged background, and a sound education. Perhaps more remarkable is the determination shown by these women to publically pursue their interests in the face of both incredulity and hostility from the male community. Many women, particularly in Victorian times, wrote anonymously, as these women did. Others confined themselves to the more "respectable" pursuit of writing books for children. I know of no



other titled ladies who have published entomological books, although I am ever hopeful that the next trip to a second-hand bookshop will prove me wrong!

There were, of course, other women who authored entomological books, particularly in the nineteenth century, but who were not “titled”. Included amongst these were Miss Laetitia Jermyn (signing the preface as “LJ” in *The Butterfly Collector’s Vade Mecum* first edition 1824, more confidently signing herself Laetitia Jermyn in the second edition of 1827, and finally as Laetitia Ford, her married name, in the third edition of 1836), Mrs Priscilla Wakefield (writing anonymously as author of *Letters on Entomology*, 1825), Maria Catlow (*Popular British Entomology*, 1848), Miss M.L.Budgen (writing as *Acheta domestica* in her three volumes of *Episodes of Insect Life*, 1849-1851), and Mrs E.W.Cox (*Our Common Insects – first steps to Entomology*, 1864).

References

- Creese, Mary. (1998). Ladies in the Laboratory? American and British Women in Science, 1800-1900, A Survey of their Contributions to Research . The Scarecrow Press inc.
- Freeman,R.B. (1980). British Natural History Books 1495–1900. A Handlist. Archon Books.
- Loven, Pauline. (2010). Lady Eleanor Glanville and the Butterfly Clap net. *Bull.amat.Ent.Soc.* **69** (493): 223-224
- Montgomery-Massingberd,H (ed). (1976). Burke’s Irish Family Records. Burkes Peerage Ltd.,London.
- Sokoloff,Paul. (2011). Another “Lady” entomologist from the past. *Bull.amat.Ent.Soc.* **70** (495): 45-47





Letter from Spain – 13th in a series – Spanish winter butterflies: an update for 2010/11 with additional species

by David Keen (3309L)

Calle Casto Bancalero 11, 41650 ElSaucejo, Sevilla, Spain.

After the very poor weather we experienced during the winters of 2008/9 and 2009/10, I am delighted to be able to say that the weather in the winter under review was, overall, better. The first half of November was very warm with a lot of sunny days but the second half was the coldest ever recorded in Seville. In December we had well under half the rain we had in the previous one. January and February were generally much drier, warmer and with a lot more sun than in the last two years. Having said that, we did experience continuous torrential rain between 18 and 19 December 2010 (30mm recorded) and again on 16 February 2011 (21mm of rain). These two episodes caused further damage to the local countryside with more of the south facing banks being washed away and a four-metre deep ravine appearing where previously there was only a shallow depression. One main track in the countryside was blocked by boulders through December and January but this has now been cleared.

At the same time a stand of well-established bamboo – up to four-metres high – on both sides of the track was washed away. The track at this point is crossed by a small stream and was a favourite site during the year for the Speckled Wood, *Pararge aegeria*, as the bamboo afforded an area of dappled sunlight so liked by this species. As expected, I saw the species there on 3 November but it was not seen later in the winter. Probably, over time, the bamboo will re-establish itself but, in the meantime, this useful micro-site has been lost.

With the generally better weather I was able to venture out more often than in the previous two winters. As a result, I saw a total of 20 species as against only 13 in each of the two previous winters. In addition to the visits to the local countryside, I also went to thirteen other locations further afield in the search for different species, with varying degrees of success. As a result, I can add a species that I had not seen before and another which I had not included in my previous articles because I had assumed the specimen seen in November 2006 was of a common species – see under Lycaenidae below. This means that I have now seen a total of 25 species during the winter months out here in Spain.

Before discussing the species seen last winter it is worth mentioning the new book, *Las Mariposas de Espana Peninsular*, by Redondo and



others which was published in 2010. On the face of it, this book is an illustrated guide to the Butterflies of the Spanish Peninsular. However, the Spanish word “mariposa” means both butterflies and moths, and this book covers over 1765 of day and night flying species. Of these, about 230 are what we would call butterflies. With so many species included the individual descriptions are limited and, with only a few exceptions, there is no mention of either the number of generations or the flight periods. However, it is a useful addition to the library providing one has, at least, a basic understanding of the Spanish language. The colour illustrations, whilst not as good as in some books, are generally reasonable and are better than I have seen in some of the other publications.

I will now discuss the species seen last winter, starting with the members of the Papilionidae. The Swallowtail, *Papilio machaon*, was first seen during a visit to the Lobo Parque (Wolf Sanctuary) near the large town of Antequera, Malaga Province, on 4 November. Several specimens were seen during the day but I did not see it locally until a visit to the countryside on 25 February. On that day two examples were seen flying along south facing earth banks. The only other member of this family to be seen was the Spanish Festoon, *Zerynthia ruminia*. I saw it on two occasions, 8 February and 25 February, and each time there were several examples flying in different parts of the local countryside. 8 February is also the earliest record that I have for this species - the previous earliest being on 29 February 2008.

Turning to the Pieridae, I saw a total of six species of which the Large White, *Pieris brassicae*, and the Small White, *Artogeia rapae*, were seen just about everywhere I went. The next two most commonly met species were the Clouded Yellow, *Colias croceus*, and the Bath White, *Pontia daplidice*, which were each seen on seven occasions. Both were seen in good numbers in the Lobo Parque on 4 November and on all six visits to the local countryside. Two or three male Brimstones, *Gonepteryx rhamni*, were also seen in the Lobo Parque and another male made a brief appearance as I walked through a patch of dense undergrowth in the countryside on 25 February. With the exception of the 2009/10 winter, I have normally seen the Green-striped White, *Euchloe belemia*, in good numbers by the middle of February. However, this year I did not see any until one was spotted at the end of my walk in the countryside on 25 February.

The Two-tailed Pasha, *Charaxes jasius*, was not seen as I did not go to the city of Sevilla this winter and I have yet to see it in one of its coastal locations. It was my intention to visit the Natural Park near Estepona on



2 November but this is now closed during the winter except at weekends! I understand that this locality contains a great assortment of trees and has many open spaces - thus it could well be that this species is found there. I will try again in the future and will keep you posted. Thus, only two members of the Nymphalidae were observed during the winter under review. The Red Admiral, *Vanessa atalanta*, was the most frequently met species and was first seen on 3 November, both in our street (one specimen) and in the local countryside where two or three were spotted. The following day another was seen outside a leather factory on the outskirts of the local town of Campillòs and on the following day yet another was seen south of our village on the road to Almargen. On 11 November I visited the village of Alamada in the Province of Malaga and saw another flying just outside the restaurant where I had a midday meal. Eight days later another specimen flew over the garden and this turned out to be the last record for 2010. The only other sighting for this winter was a specimen seen in the local countryside on 18 January. The Painted Lady, *Cynthia cardui*, has not been anywhere near as common this winter as in most of our previous six winters. I only have four records, all of individuals: Campillos on 5 November, on the road to Almargen on 6 November, and in the local fields on 18 January and 25 February.

Now to the Satyridae, for which we have records for the usual two species, the Speckled Wood, *Pararge aegeria*, and the Wall Brown, *Lasiommata megera*. The former was seen on only four occasions: in the local countryside on 3 November, twice in our street on 12 and 13 November and finally in gardens by the seafront in Marbella on 26 December. Here two specimens were seen flying in the very pleasant sunshine - they were also the last butterflies to be seen in 2010. As mentioned already, the micro site where I would normally expect to find this species by the end of February has been destroyed by the heavy rain. Thus I have yet to see this species in 2011. The Wall Brown was seen in the countryside locally on 3 November and again on both 18 January and 25 February - on the last two occasions several were seen sunning themselves on various tracks.

As has always been the case, only one member of the Hesperidae was seen during the four months under review. This was the Mallow Skipper, *Carcharodius alceae*, which was seen four times in November - in the local fields on 3 and 15 November, in the Lobo Parque on 4 November and by the road to Almargen on 6 November. Each time only single specimens were to be seen.

Now we come to the Lycaenidae which I have purposely left until last as this is where I can add the two extra species to my list of Spanish



winter butterflies. Before we get to them let us discuss the other six species from this family that were seen during the winter. I only saw one specimen of the Small Copper, *Lycaena phlaeas*, and this was in the local countryside on 3 November. It is normally seen in ones or twos locally in January and February but it did not appear this year. As usual, the Long-tailed Blue, *Lampides boeticus*, was seen in November – in the local countryside on both 3 and 15 November (in good numbers on both dates) and an individual was seen on the road to Almargen on 6 November. Lang's Short-tailed Blue, *Leptotes* (= *Syntaracus*) *pirithous*, was also seen in the countryside on 3 November in good numbers but was not seen again in 2010. However, a very battered specimen was noted in the same locality on 8 February which confirms that this species can be found in the early part of the year which is contrary to published flight periods – see Letter from Spain 4. The Geranium Bronze, *Cacyreus marshalli*, made two appearances on 5 November – one was seen near the leather factory in Campillos in the morning and another was seen on geraniums in the garden in the afternoon. These were the only occasions on which I saw this species last winter. As expected the Common Blue, *Polyommatus icarus*, has made it onto the list but with only two sightings. These were both in the local fields where several males and the odd female were seen on 3 November and a couple of males were spotted on 25 February.

I was concerned about the Provence Hairstreak, *Tomares ballas*, as the south facing bank, on which I have seen the vast majority of the specimens locally, was washed away in the heavy rains mentioned at the start of this article. There was no sign of it all on 8 February – perhaps a little early in the season – and no sign of it in the area of the bank on 25 February. After looking for it for almost three hours I was very pleased to see a fresh female on 25 February but in a part of the site where I had not seen it before. However, I am still concerned as this species is normally common towards the end of February.

We now come to the first new species for this list – Escher's Blue, *Plebicula* (= *Polyommatus*) *escheri*. This is a species that I have encountered in the summer months both in the local countryside and also in the country around the village of La Mezquitilla which is a few kilometres from here. In my field notebook I have a note of this species among the list of butterflies seen in the local countryside on 27 November 2006. This was because I had seen – (I “can still see it”) – a blue butterfly which was too blue to be a male *P. icarus*. However, as I had not been close enough to net it for identification, and the flight period was so out of phase with the literature I did on it include it in Letter from Spain 4.



No further sightings were made during the following winters so I had assumed that it must have been a one-off figment of my imagination. However, on 26 October 2010, I spent several hours in the local countryside and found this species flying in good numbers in a meadow which was covered in wild flowers. The whole field was alive with good numbers of all sorts of butterflies. It would seem that this species did have a second generation down here in 2010 and I took a pair as voucher specimens. With so many specimens, many of them fresh, flying at the end of October I fully expected to see some again when I visited the same locality on 3 November. However, I am sorry to have to report that all the plants and the flowers in that field were dead - I can only presume that someone had sprayed the area with weed killer! An extensive search was made that day throughout the neighbouring fields but they had in the main been ploughed earlier in the year and were devoid of flowers. However, I am now perfectly certain that the very blue butterfly that I saw in November 2006 was indeed a male of this species. This is contrary to the information in the literature: Diaz says there is only one generation, in the summer; Feltwell gives one generation in June/July; Higgins & Riley say it flies from the end of June into July in one generation; whilst Redondo does not give the flight period.

My last record for this winter is the second newcomer to my list. On 2 November I had hoped to visit a park near to the town of Estepona but it was shut. Thus we spent the day in the town itself and after a visit to the Tourist Office, decided to go to the local Bull Ring as there is an interesting museum there. It was due to open at 5pm so around that time made our way there - and waited for about 45 minutes but no one came to open up, so we decided to call it a day as we had a two hour drive home and my wife had to cook a meal for her brother who we had met at Malaga airport in the morning. I do not know why, but we decided to walk round the back of the Bull Ring and found that there were several paths leading up to other entrances. These were covered in weeds and I noticed three or four blue butterflies at the top of one of these paths. I walked up towards them and as I got closer I realised that they were of a species that I had not seen before. Despite it being late in the day they were easily disturbed and rather difficult to get close to. But I did manage to have a very good look at the underside of one of them. "What on earth is that?" I said to myself. Once back at home I consulted the books and from the illustrations in each of the books by Diaz, Feltwell and Higgins & Riley I concluded that the species in question was the False Blatton Blue, *Philotes* (= *Pseudophilotes*) *abencerragus*. Diaz says that this species flies in small groups and is very difficult to catch as it has a rapid zig-zag flight - exactly as I saw it in Estepona. He says the flight period is in the



middle of spring and it is only found in mountain areas and gives the frontier between the provinces of Seville and Cordoba and near the town of Cazorra in the province of Jaen as specific localities. Feltwell says there is one generation in April-May but does not give details as to its preferred territory. Higgins and Riley say the flight period is "April/May perhaps with a second brood in summer (not recorded)" and go on to say that it is widely distributed in southern Spain over 2,500 feet. Redondo merely says that it is found in the southern half of the Iberian Peninsula but his illustrations match the image in my memory. Now clearly my specimens were not seen at over 2,500 feet nor were they seen in the spring. However, I have to say that from the flight description in Diaz and from the illustrations in all four books I really am pretty well satisfied that this is the species that I saw by the Bull Ring. Had I had a net with me that day perhaps I would now have a voucher specimen to prove it! *Que sera, sera!*

Overall an interesting winter for butterflies down here in southern Spain with many more records of butterflies being seen well out of their recognised flight periods. I wonder what next winter will turn up?

References

- Diaz, Manuel. 1998. Mariposas Diurnas y Nocturnas de Andalucia pp 179-80 and 183-4. Centro Andaluz Libro, S.A. Sevilla.
- Feltwell, John. 1992. The Pocket guide to Butterflies of Britain and Europe pp 148 and 159. Parkhead Books. London.
- Higgins, L G. and Riley, N D. 1970. A Field Guide to the Butterflies of Britian and Europe pp 270 and 297-8. Collins. London
- Keen, David. 2007. Letter from Spain – 4th in a series – Some Spanish winter butterflies. *Bull. amat. Ent Soc.*, **66** (474) 176-179
- Keen, David. 2008. Some Spanish winter butterflies – an update. *Bull. amat. Ent Soc*, **67** (477) 70-74.
- Keen, David. 2009. Letter from Spain – 7th in a series – Spanish winter butterflies: a further update. *Bull. amat. Ent Soc*, **68** (484) 96-97.
- Keen, David. 2010. Spanish winter butterflies – an update for 2009-10. *Bull. amat. Ent Soc* **69** (490) 105-107.
- Redondo, V. Gaston, J and Vincente, J C. 2010. Las Mariposas de Espana Peninsular - Manual ilustrado de las especies diurnas y nocturnas. pp 1-83. Edita Prames. Zaragoza.

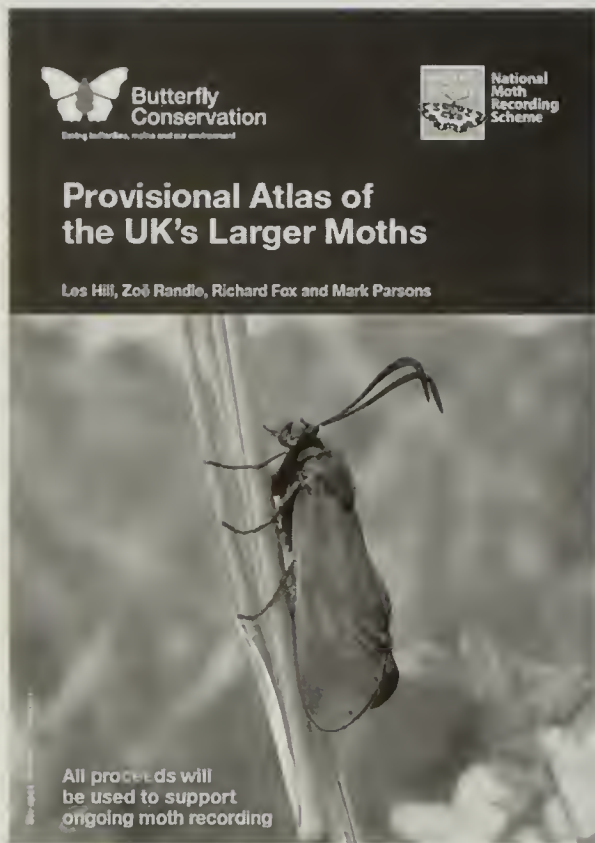




Book Reviews

Provisional Atlas of the UK's Larger Moths

By Les Hill, Zoe Randle, Richard Fox and Mark Parsons, published by Butterfly Conservation, 2010, 454pp, ISBN 978-0-9562216-4-3. A4 Paperback £20 + £5 p&p. Available from the publishers.



This extensive atlas presents the results of the most recent surveys carried out by the National Moth Recording Scheme, collating over eleven million moth records submitted by several thousand recorders and covering eight hundred and sixty five species of “macro” moths across the UK. The survey data are presented as dots superimposed upon a map of the UK, with black dots indicating the presence of the species after the year 2000 and open circles for pre- 2000 records.

The book begins with five pages introducing the atlas and how the surveys were carried out. Pages 6 through to 439 comprise the distribution maps

with two per page in landscape format, each showing the results for a single species of moth, listed in their Bradley & Fletcher order. Along with these maps are the common and scientific names of each species. The last 15 pages of the book hold three indices – helpfully listing moths by species, genus and vernacular name.

The book is entirely black and white (except for the cover) which helps to highlight the differences on the maps of the presence of moths in surveys carried out before and after the year 2000. Although the book does not show every species of moth recorded in the UK, omitting for example those considered to be accidental imports, it does provide data for the majority of them and the maps provided give a very comprehensive overview of the distribution of each species.



There is a long history of recording moths in the UK, and all the species, with the exception of the Geometridae, have been included in published maps in the past, either as part of the original Lepidoptera Recording Scheme or in various volumes of *Moths and Butterflies of Great Britain and Ireland*. Despite the extent of the recording, the Atlas is still described as “provisional” and appears to contain only records submitted by participating members of the scheme, without any attempt to search the literature for additional records. There are some oddities in the book, for example the inclusion of records for aggregates where species are difficult to separate, such as the Minors (*Oligia*), November Moths (*Epirrita*), and Rustics (*Mesapamea*) alongside records for the individual species. Some of the nomenclature is a bit out of date, and records are included for the Autumnal Snout, *Schrankia intermedialis* which has not been considered a distinct species for some years now.

All in all this atlas provides a very comprehensive summary of the surveys from the National Moth Recording Scheme database that will prove most useful to the experienced amateur or professional entomologist. It is perhaps a testimony to the need for such a book that the first print runs sold out in record time!

Kara Majerus

A Guide to the Hawkmoths of the Serra dos Orgaos, South-eastern Brazil



By Alex Martin, Alexandre Soares and Jorge Bizarro. 142 pp 51 colour plates. 200 x 250 mm Paperback. REGUA Publications, 2011. ISBN 987 0 9568291 0 8 Price £24.99. Available from NHBS- everything for wildlife, science & environment. www.nhbs.com

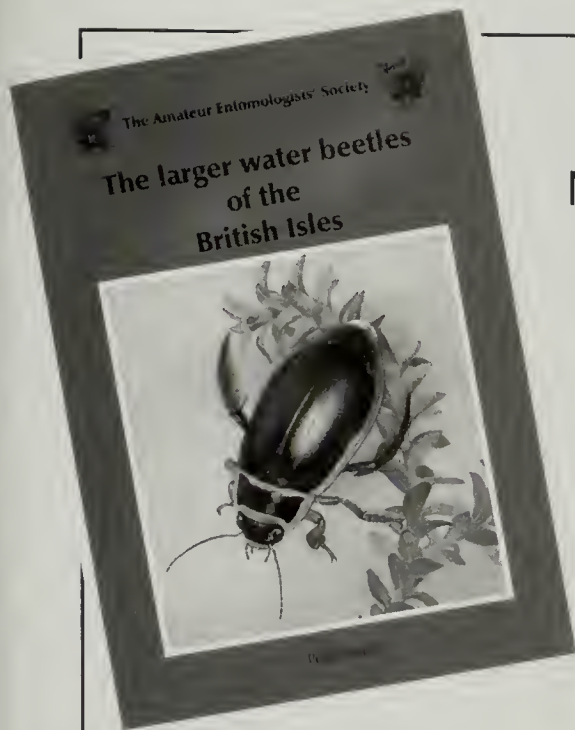
Hawkmoths have an enduring appeal for their attractiveness, size, sheer power and their breathtaking diversity, particularly in tropical regions. This attractive volume deals with the 110 Neotropical species found in a



small reserve which is part of the Atlantic Rainforest in south-eastern Brazil, and an additional 4 species that have been recorded close by. The introductory chapters are written in both Portuguese and English, and cover a preface, checklist of hawkmoths, introduction to the region, hawkmoth taxonomy, life history and development. The main text of the book deals with the individual species and is written in English only. For each species there is a reference to the original description, synonyms, type locality, common name where applicable, size, notes on world-wide distribution and tips for identification. There then follows 37 pages of colour illustrations showing both upper and under-sides of set specimens, illustrating both sexes where they are known. There are four pages of habitat photographs, and a final 10 pages of colour photographs of living moths. The work concludes with a number of appendices covering notes on an historic collector, the reserve, some details of key species, and notes on the host-plants of Neotropical Sphingidae, distribution of species by Province, a phenology table and detailed bibliography.

One of the appendices is a brief biopic of Henry Richard Pearson (1911 – 2004), an Englishman who was one of the first entomologists to study Lepidoptera in the region. He amassed a collection of more than 12000 specimens, which he donated to the Museu Nacional of Rio de Janeiro.

There are many books available on world hawkmoths, a good many of them substantial monographs that are very costly to purchase. By comparison, this is a modest volume but well produced, well written and packed with information. The qualities of the colour reproduction are adequate for the set specimens, but very good for the habitat and live moth pictures – and the price is very attractive! The authors and staff of the Reserva Ecológica de Guapiaçu are to be congratulated on producing an inexpensive and informative guide to these moths, which will be of great help to visitors to this region of Brazil, as well as those in other parts of Neotropical South America and those with a general interest in world Sphingidae.



Member's Price **£8.23**

Non-member's Price **£10.73**



The larger water beetles of the British Isles

For those who love the spectacular larger water beetles of the British Isles, this is the publication that you have been waiting for! It is the only modern publication with colour illustrations of all of our aquatic coleopteran megafauna and it provides the most up-to-date distribution maps revealing their current distributions. Jam-packed with fascinating details of their life-histories, this book covers 11 species including the six native 'Great Diving Beetles' and the 'Silver Water Beetles'. It is also copiously illustrated with text figures and has much additional information including details of observed climate-induced range changes and the conservation measures required to ensure their continued survival.

The above publication is sent post free to U.K. addresses. Outside U.K. please add 10% to order value for postage by surface mail.
For postage by air-mail outside Europe please add 30% to order value. Please allow 28 days delivery.

Please make all cheques/postal orders payable to 'AES Publications' and send to:

AES Publications, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Telephone 01277 224610 • Fax: 01277 262815 • E-mail: aespublications@btconnect.com

Dipterists Handbook (Second Edition) edited by Peter Chandler (with contributions by 42 other authors)

This Handbook provides a work of reference for everyone interested in the study of flies, both beginners and experienced dipterists.

As in the first edition great emphasis has been placed on the habitats and biological associations of flies. Among the authors are specialists in each field of study so it has again been possible to bring together a summary of the latest knowledge of all aspects of the biology of Diptera at the species level.

There are additional subjects not covered in the first edition including Forensic entomology and an explanation of the classification of Diptera and a bibliography of key works for the identification of both adults and larvae. Some specific habitat associations are covered in greater detail to reflect increased ecological knowledge of flies and the greater significance now being placed on some habitats in the conservation of Diptera. 525 pages with 32 colour plates and 45 text figures. **£ 46.66**

Members price £ 38.66

British Butterflies throughout the year by Peter May

This new book from the AES describes the adults of different species of British butterflies, according to the time of year they appear on the wing. Nearly all the 60 British species are illustrated. Focussing on encouraging an interest in entomology among the young, and the young at heart, there is a helpful calendar of flight times and a useful checklist to help you keep track of your observations. **£ 5.42**

Members price £ 4.42

Preparing and maintaining a collection of Butterflies and Moths

by P. May and M. White. A practical manual detailing the various methods used to prepare specimens for a collection, from killing methods, setting the specimens and repairing damaged ones, to storage and preservation, including pest prevention and cure. 21 pages, 4 figures and 5 plates. (2006) **£ 5.42**

Members price £ 4.42

The Hymenopterist's Handbook by Dr. C. Betts *et. al.*

2nd edition dealing with the history of their families, classification and structures; natural history; studying, collecting, breeding, attracting and preserving Hymenoptera. Appendices include keys to the families. 214 pages with numerous tables, keys and figures (1986) **£ 11.23**

Members price £ 8.48

Revised Flight Tables for the Hymenoptera

Revised flight tables for the Hymenoptera giving, wherever possible, times, location, flower visits and some indication of distribution and abundance. 24 pages (1988) **£ 3.17**

Members price £ 2.92

A Coleopterist's Handbook

Edited by J.Cooter & M.V.L.Barclay The *Coleopterist's Handbook*, is now available as a fully revised and expanded fourth edition. Nomenclature has been brought inline with current

use, collecting/curatorial methods reflect best practice and plant/beetle and beetle/plant lists are included together. Recent additions to the British fauna, modern and traditional techniques are included. All advice and comment given in the book is based upon collective years of practical experience of both curatorial methods and field craft; beetle family chapters have each been written by an internationally recognised authority. 496 pages including 32 colour plates. **£ 50.90**

Members price £ 39.90

Host plants of British Beetles: A List of Recorded Associations

A list of a wide range of plants, in alphabetical order, together with the beetle species that have been recorded as being associated with them. 24 pages (1992) **£ 3.17**

Members price £ 2.92

A Silkmoth Rearer's Handbook by B.O.C. Gardiner

SPECIAL OFFER PRICE £ 8.61

No further discounted price available

Rearing and Studying Stick and Leaf-Insects by P. D. Brock
 Specifically intended for beginners, although it is also suitable for experienced Phasmid enthusiasts, it is one of the few guides to rearing that features the majority of the culture stocks available, 22 species in detail. The informative text is complimented by 8 colour plates, 14 black and white plates and 29 figures. (New edition, 2003) **£ 8.73**

Members price £ 7.73

The Study of Stoneflies, Mayflies and Caddisflies by T.T. Macan

A comprehensive guide to collecting and studying the biology and ecology of these aquatic insects. 44 pages, 10 figures and bibliography (1982) **£ 3.92**

Members price £ 3.42

Breeding the British Butterflies by P.W. Cribb

A practical handbook covering all aspects of butterfly breeding, including general techniques, equipment and hints on how to breed each of the British species. 60 pages, 6 figures, 5 plates, Revised (2001) **£ 6.42**

Members price £ 4.92

Practical Hints for the Field Lepidopterist by J.W. Tutt

Written at the turn of the century, this book has been reprinted because of its scarcity and value to students of Lepidoptera. It gives a complete month by month guide to which species and stages of macros and micros to look for and how to find them. Also contains a biological account of the early stages and how to keep, rear, photograph and describe them. 422 pages. Hardback. (Reprinted 1994). **£ 23.15**

Members price £ 18.15

An index to the modern names for use with J.W. Tutt's

Practical Hints for the Field Lepidopterist by B.O.C. Gardiner

A valuable cross-reference guide between the scientific and English names used in the early 1900s and the present time. **£ 4.42**

Members price £ 3.92

A Guide to Moth traps and their use by R. Fry and P. Waring
The first sections deal with the measurement and properties of light leading into the types of lamp available and the electrical circuits needed to operate them. The next sections give details of the construction of the most popular traps used in the UK. The last half deals with the practical use of traps in the field including where and when to trap, limitations of traps and their relative performance. 68 pages, 21 figures, 15 plates (1996)

£ 7.42

Members price £ 5.92

The Amazing World of Stick and Leaf Insects by Paul D. Brock

A superb, comprehensive guide, for all those intrigued by these groups of insects. Topics covered include structure, fascinating facts, life history and development, defence behaviour, enemies, collecting, breeding (including trouble shooting), preserving, taxonomic studies, important collections in Museums etc. around the world and elaborate stories, beliefs and poems. Also outlines the major known species around the world on a regional basis. A section on Fossils is included. Includes a comprehensive glossary of the technical terms used in the description and classification of stick and leaf-insects. Hardback A5, 184 pages, 46 figures, 26 black and white plates and 40 pages of colour plates (containing 83 photographs and 4 drawings/paintings of insects and their habitats). (1999)£

16.26

Members price £ 13.76

Rearing Parasitic Hymenoptera by M. Shaw

This booklet provides information on the parasitic Hymenoptera to enable successful studies to be made of this little understood group of the British insect fauna. Details are given on the general biology of parasitic wasps, rearing principles, efficient rearing practices and detailed methods of dealing with adult wasps. 52 pages, 4 colour plates (New edition – 2001) **£ 6.42**

Members price £ 4.92

Larval Foodplants of the British Butterflies by Peter May

A comprehensive compilation of the known larval foodplants of our native and immigrant butterflies. Also including "How to Encourage Butterflies to Live in Your Garden" by the late Peter Cribb 62 pages. (2003) **£ 7.92**

Members price £ 6.17

The larger water beetles of the British Isles by Peter Sutton

For those who love the spectacular larger water beetles of the British Isles, this is the publication that you have been waiting for! It is the only modern publication with colour illustrations of all of our aquatic coleopteran megafauna and it provides the most up-to-date distribution maps revealing their current distributions. Jam-packed with fascinating details of their life-histories, this book covers 11 species including the 6 native 'Great Diving Beetles' and the 'Silver Water Beetles'. It is also copiously illustrated with text figures and has much additional information including details of observed climate-induced range changes and the conservation measures required to ensure their continued survival. **£ 10.73**

Members price £ 8.23

Glossary for the Young Lepidopterist **£ 2.08**
6 pages, 2 figures. (1951) *Members price £ 2.08*

A Label List of European Butterflies **£ 2.92**
20 pages. (Revised 1981) *Members price £ 2.67*

Some British Moths Reviewed

Aid to the identification of some of the more difficult species. Reprinted from the *Amateur Entomologist* Vol. 5 (1941) and a *Guide to the Critical Species of Lepidoptera*, reprinted from *Entomologists' Gazette* 1969-72. 64 pages, 6 black and white plates, numerous figures (1985) **£ 4.17**

Members price £ 3.67

Butterflies of Cyprus 1998 (Records of a years sightings) by Eddie John

Observations of the 44 species of butterfly found on the island in 1998 including notes on each species and distribution maps. 46 pages (2000) **£ 4.92**

Members price £ 3.92

Collecting Het.Bugs (Hemiptera: Heteroptera) *** £ 1.83**
12 pages (including 2 plates). (1946) *Members price £ 1.83*

Collecting Clearwings
12 pages (including 2 plates), 4 figures. (1946) **£ 1.83**
Members price £ 1.83

Collecting Lacewings
9 pages, 8 figures, 5 plates. (2nd edition 1976) **£ 2.42**
Members price £ 2.42

An Amateur's Guide to the Study of the Genitalia of Lepidoptera
16 pages, 15 figures. (1973) **£ 2.42** *Members price £ 2.17*

Rearing the Hymenoptera Parasitica **£ 2.42**
16 pages, 1 plate, 10 figures. (1974) *Members price £ 2.17*

Rearing Crickets in the Classroom
12 pages, 2 plates. (1986) (Reprinted 1993) **£ 2.08**
Members price £ 1.83

Guidelines for Entomological Site Surveys
Published on behalf of the JCCBI. 7 pages (2000) (Reprinted 2003) **£ 3.08**
Members price £ 2.83

The Journal of the Entomological Exchange and Correspondence Club 1935-1936
An AES Jubilee Publication. Fascinating reprint of the very first volume of the AES journal. 100 pages. **£ 3.42**
Members price £ 2.92

All the above publications sent post free to U.K. addresses. Outside U.K. please add 10% to order value for postage by surface mail. For postage by air-mail outside Europe please add 30% to order value. Please allow 28 days delivery.

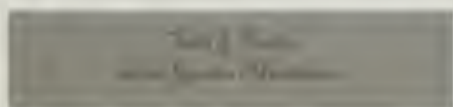
Please make all cheques/postal orders payable to 'AES Publications' and send to:

AES Publications, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Telephone 01277 224610 • Fax: 01277 262815 • E-mail: aespublications@btconnect.com

A new book by Sonia Copeland Bloom

Eddie the Earthworm
survives the day!

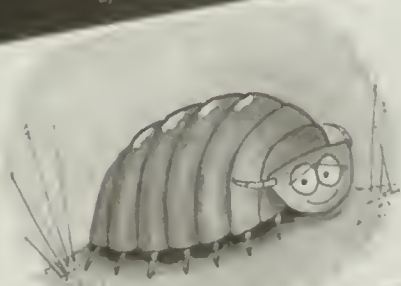


This is the third book in the *Tales and Truths* Series published by the AES, and is about Eddie the Earthworm and his friend Ellie, who turn a problem into a solution and save the day when an important worm gathering threatens to be a disaster!

These books consist of an engaging story about a minibeast supplemented by factual sections, including how to look after them as pets.

Woody the Woodlouse
*who forget how to roll
into a ball*

by Sonia Copeland Bloom



*Tales & Truths
about Garden Minibeasts*



HOW TO ORDER

To order please send a cheque for the correct amount to:
Tales and Truths, PO Box 8774, London
SW7 5ZG
Or visit the AES online shop:
<http://shop.amentsoc.org>

Members' price £3.50 post free
(Non-members' price £5.50)



AES Membership Rates 2011

Membership of the Society runs from 1st January to 31st December each year. New members will receive all publications published during the year of enrolment subject to availability, except for those joining on or after 1st October.

Any member joining on or after 1st October will be deemed to have joined for the following year unless he or she specifically requests membership for the current year. If such a request is made, the publications already published that year will be sent with the enrolment confirmation letter and the remaining ones will be sent when they are published. A further membership subscription will be necessary for the following year.

If you have any queries about membership please contact us via the website, www.amentsoc.org or PO Box 8774, London SW7 5ZG

Individual Adult Membership

Membership sub-category	UK	Overseas
<i>Bulletin only</i>	£20.00	£25.00
<i>Entomologist's Record only</i>	£25.00	£30.00
<i>Bug Club Magazine only</i>	£20.00	£25.00

Individual Bug Club / Junior Membership

Membership sub-category	UK	Overseas
Junior under-18 (<i>Bug Club Magazine only</i>)	£12.00	£17.00
Junior aged 13-17 (<i>Bulletin only</i>)	£12.00	£17.00

Family or Combined Membership

Membership sub-category	UK	Overseas
<i>Bulletin & Entomologist's Record</i>	£40.00	£45.00
<i>Bulletin & Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record & Bug Club Magazine</i>	£35.00	£40.00
<i>Bulletin, Entomologist's Record & Bug Club Magazine</i>	£48.00	£53.00

Associate / Institutional Membership

Membership sub-category	UK	Overseas
<i>Bulletin only</i>	£20.00	£25.00
<i>Entomologist's Record only</i>	£50.00	£55.00
<i>Bug Club Magazine only</i>	£20.00	£25.00
<i>Bulletin & Entomologist's Record</i>	£65.00	£70.00
<i>Bulletin & Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record & Bug Club Magazine</i>	£65.00	£70.00
<i>Bulletin, Entomologist's Record & Bug Club Magazine</i>	£75.00	£80.00

The Amateur Entomologists' Society

PO Box 8774, London SW7 5ZG

www.amentsoc.org

The
Bulletin
of the Amateur Entomologists' Society

Volume 70 • Number 498

October 2011

CONTENTS

Editorial	169
Society Matters	171
Sokoloff, P., Lewis, D. and Ruffle, J. The AES Annual Exhibition – October 2011	175
Woolmer, J. Goliath, Vanilla and Palm Oil.....	189
Woolmer, J. Small Copper var. <i>caeruleapunctata</i>	194
Sokoloff, P. Yet another “Lady” entomologist from the past	195
Keen, D. Letter from Spain – 12th in a series – Spanish winter butterflies: an update for 2010/11 with additional species	200
 Book Reviews	
<i>Provisional Atlas of the UK's Larger Moths</i>	206
<i>A Guide to the Hawkmoths of the Serra dos Orgaos, South-eastern Brazil</i>	207

ES 36 A

The Bulletin



of the Amateur Entomologists' Society

Volume 70 • Number 499

December 2011

NATURAL
HISTORY MUSEUM

10 JAN 2012

PRESENTED
ENTOM LIBRARY



ISSN 0266-836X

Editors: Dr P. Wilkins & Paul Sokoloff



000174483



Founded in 1935

The AES • P.O. Box 8774 • London • SW7 5ZG

www.amentsoc.org

Email: contact@amentsoc.org • bug-club@amentsoc.org

Officers of the Society

President: Peter Hodge

Secretary: Dafydd Lewis (secretary@amentsoc.org)

Treasurer: Peter May (treasurer@amentsoc.org)

Registrar: Dafydd Lewis (registrar@amentsoc.org)

Bulletin Editor: Phil Wilkins/Paul Sokoloff (bulletin-submission@amentsoc.org)

General Editor: Jacqueline Ruffle

Advertising Secretary: Peter Hodge (advertising@amentsoc.org)

Exhibition Secretary: Wayne Jarvis (exhibition@amentsoc.org)

Youth Secretary: Kieren Pitts

Conservation Secretary: David Lonsdale

Webmaster: Kieren Pitts

ICN Editor: David Lonsdale (icn@amentsoc.org)

Wants & Exchange: Peter May (newsletter-editor@amentsoc.org)

THE AES WORKS TO PROMOTE AND DISSEMINATE ENTOMOLOGICAL KNOWLEDGE AND TO
ENCOURAGE AN INTEREST IN ENTOMOLOGY AMONG THE YOUNGER GENERATION.

BULLETIN ADVERTISING RATES:

Advertising in the AES *Bulletin* is a cost effective way of reaching all AES members and many others who benefit from institutional subscriptions.

Full page £75 for each advert or £375 for six adverts in the same year.

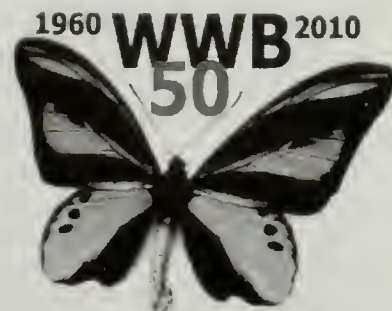
Half page £50 for each advert or £250 for six adverts in the same year.

Quarter page £30 for each advert or £150 for six adverts in the same year.

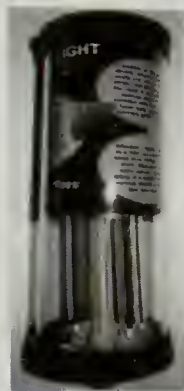
NOTICE

It is to be distinctly understood that all views, opinions, or theories, expressed in the pages of this Journal are solely those of the author(s) concerned. All announcements of meetings, financial grants offered or sought, requests for help or information, are accepted as bona fide. Neither the Editor, the Officers and Council of the Society, nor its Trustees, can be held responsible for any loss, embarrassment or injury that might be sustained by reliance thereon.

Worldwide Butterflies



Watch the wwbb website
www.wwb.co.uk
for new developments



Light now
available
alone or
with the
**Moonlander
Moth Trap**

Moonlander Moth trap

Folds totally flat and is
contained in a
convenient slim
shoulder bag.
Very lightweight.

**The Moonlander turns the
principle of moth trapping
upside down!** Moths enter
from the bottom and cannot
escape through the top.
**Works as sheet and trap
combined.**

Better than traditional egg
boxes, moths prefer the new
**reticulated foam moth
shelters** and cone.

The new Goodden Light 12v for use in remote areas

By studying the light output from MV, Robert Goodden
has developed this sophisticated portable unit with
aspects in common with MV, using so little power that it
runs all night on a 7.5Ah battery. It attracts insects much
better than actinic lights, even powerful ones requiring
heavy batteries. **Rainproof and safe.** The photoswitch
puts the light on and off automatically.

See **www.wwb.co.uk** for
prices and more.



Both trap and light are total innovations by Robert Goodden.
They are tried and tested in Europe and the tropics.
In good conditions the results are spectacular.

Worldwide Butterflies website offers **Livestock and Equipment for
breeding and study. Specimens for specialist collectors will be added as
available.** The system enables you to see exactly what is currently available as
the season changes. From time to time there are special **Sale Offers** of
equipment, books, livestock and specimens - an ever changing situation.

www.wwb.co.uk Add it to your **Favorites** - check it regularly.

ATROPOS ANTIQUES*

PURVEYORS OF FINE COLLECTOR'S CABINETS

*Many of you will have met us at the AES London Fair
where we regularly show entomological cabinets for sale*



- We are specialist dealers in fine collector's cabinets.
- We can offer a choice of at least 30 cabinets, varying in purpose, construction, quality and price.
- We can supply both restored and un-restored cabinets and will undertake to restore and paper cabinets for clients.
- We are always interested in the purchase or exchange of cabinets, with or without a collection.
- Callers to our showrooms are always welcome by appointment.
- We offer a specialist collection and delivery service throughout the UK and have full expertise in the safe transportation of cabinets and collections.

We now have a dedicated cabinet showroom in Hartland, North Devon, and are happy to receive visitors to view the stock of over sixty cabinets including all the famous makers names. Please telephone or e-mail if you wish to call. Hartland is famous for it's coastline and dramatic scenery and was one of the last known haunts of the Large Blue.

We are very keen to buy whole insect collections and collecting paraphernalia ancient or modern. Please contact George Morgan by telephone or e-mail.

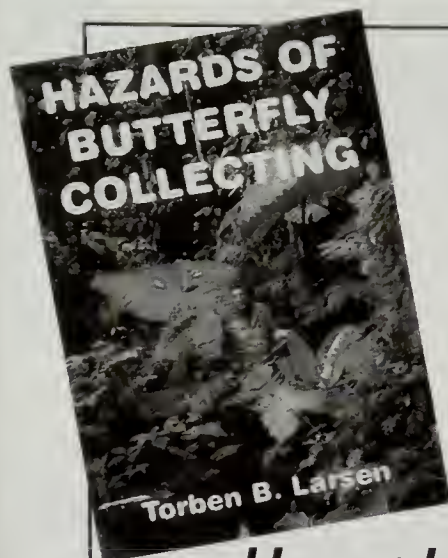
George Morgan

97, West Street, Hartland, N. Devon EX39 6BQ

T: 01237-441205/984 M: 07973 302190

E-mail: george@atropos.wanadoo.co.uk

* We are an independent dealership of 30 years standing and have no association with any similarly named business.



SPECIAL OFFER

£7.50 each

(inc. UK p&p)

£9.50 each (overseas)



Hazards of Butterfly Collecting

by Torben B. Larsen

Rearing Stick and Leaf Insects

by Ronald N. Baxter

ORDER YOUR COPY NOW FROM

Cravitz Printing Company Limited, 1 Tower Hill, Brentwood, Essex CM14 4TA.

Tel: (01277) 224610 • Fax: (01277) 262815 • E-mail: CravitzPrinting@btconnect.com

Bulletin Cover



The photograph on this month's cover is the African Grass Blue *Zizeeria karsandra* (Lepidoptera: Lycaenidae).

Z. karsandra has a wingspan ranging from 15-25 mm, making it one of the smaller members of the 'blues' family. The species is common in Cyprus and other countries of the Levant, in some areas becoming locally abundant later in the year.

This was the first of a series of photographs taken by Cypriot naturalist and photographer, Sami Tamson, as he observed an attack on the butterfly by the Crab spider *Thomisus onustus*, which is just out of shot in the cover photograph but making a stealthy approach towards the butterfly!

The full sequence of photographs showing the predation appears elsewhere in this issue of the *Bulletin*.



ARE YOU MISSING OUT? THE ENTOMOLOGIST'S RECORD and Journal of Variation

Publishes notes, observations, articles and reviews, mainly on the Lepidoptera and Coleoptera of the British Isles and Europe.

Founded in 1890 by J. W. Tutt, and still going strong, we publish six issues a year – alternating with the *AES Bulletin*. This means there is now a first class entomological journal available every month of the year!

Our subscription price is £25 per year. If you would like to see a specimen copy, please send your name and address, and a couple of second class stamps to cover postage to:

The Editor, 14 West Road, Bishops Stortford, Hertfordshire CM23 2QP.

Write now! You never know what you could be missing.

The Entomologist's Record is a publication of the Amateur Entomologists' Society.
To ensure high standards of production we use Cravitz Printing Company.



Ian Johnson Natural History Books

(Pemberley Books)

Specialist in *Entomology* and related subjects
Also *Zoology, Ornithology, Botany* etc.

- CATALOGUES – Second-hand, Antiquarian and New books – free catalogues available on request.
- SPECIALIST BOOKSHOP at Richings Park, Iver, just to the West of London – easy to reach by car or train. Visitors are welcome to visit and view our stock, but please telephone first to confirm opening times.
 - * *By car:* only 10 minutes drive from the M25 via the M4 (Junction 5), or M40 (Junction 1). 15 minutes from Heathrow Airport.
 - * *By train:* 20 minutes from London Paddington to Iver Station on the Paddington-Slough Thames Trains service (2 trains every hour). We are 1 minute's walk from Iver Station.
- WEBSITE – view our stock on our website: www.pemberleybooks.com.
- BOOKS BOUGHT – We are always interested in purchasing books in our specialist field, particularly antiquarian, academic and scholarly works on insects and other invertebrates.

18 BATHURST WALK, RICHINGS PARK, IVER, BUCKS SL0 9AZ
Tel: 01753 631114 / Fax: 01753 631115 • e-mail: ian.johnson@pemberleybooks.com

The Bulletin

of the Amateur Entomologists' Society

Volume 70 • Number 499

December 2011

Editorial

I looked back to my editorial from December last year. I quote 'It is a cold, wet and windy day that I write this editorial – not good insect weather'. Ironically, I could write exactly the same today! However, prior to the last week or so, the weather has been surprisingly mild. Interestingly, the next part of my editorial focused on the photogenic nature of dragonflies. My daughter has managed to prove this with some plates included in this issue's colour section of one of our scarcer species.

You may notice that recently the editors have provided a fair proportion of the articles and photographs for the *Bulletin*. Believe me, this is not due to favouritism or difficult to constrain egos on our parts. It is sadly due to lack of suitable articles from the members. We struggle to completely fill each issue. I am particularly surprised that there are not more photographs for the colour sections. Ideally any submitted pictures should be accompanied by an article, but this can be short if you are worried about your writing skills.

We really would like to hear about any aspect of entomology. There are lots of changes happening to our fauna at present. If you get out and observe it, please note it down. Then let us know about your observations.

The current *Bulletin* contains articles from fairly regular contributors as well as some exciting events for next year. It also contains a few articles from myself. So, to keep me from hogging the *Bulletin*, get writing in the New Year!

Merry Christmas and a Prosperous New Year to all our members.

Phil Wilkins



NATURAL
HISTORY MUSEUM

10 JAN 2012

PRESENTED
ENTOM LIBRARY



Society News

AES Council is exploring the possibility of issuing an AES membership list, to be published during 2013 or later. Members' views on this would be welcome. Do you think a membership list would be useful? If so, please let the Hon. Secretary know (email secretary@amentsoc.org or write in).



Corrigendum

In the October *Bulletin* (page 182) we mentioned that George Spence's exhibit at the Annual Exhibition featured insect collecting methods. As a number of eagle eyed readers have pointed out, George's very interesting exhibit was actually on silk and silk moths!



A searchable archive of *Bulletin* contents listings - how you can help

Pitts, K. (10563) and Probert, M. (14071)

As I am sure you are aware, each issue of the *Bulletin* carries a contents listing on the back cover. In addition, an annual index is published enabling members to track down articles. However, if you want to search for articles on a particular topic in more than one *Bulletin* volume you need to refer to each index or the contents listings individually.

If you are new to the society then the issue is more acute. New members will not have easy access to old copies of the *Bulletin* and also won't have access to the indexes. This means that they are unable to search back through the archives for articles of interest (which they could then request from other members or, in the case of post 2004 issues, download from the society's website). Considering that the *Bulletin* has been published since 1939 there is a wealth of interesting articles within the archive but no easy way of finding them or, in fact, knowing what is there.



Some back issues of the *Bulletin* already exist in digital form but the problem remains. We have PDF copies of the *Bulletin* from 2004 to 2010 available online in the member's only area of the website. However, although we have contents listings for each issue, finding the article you want is not as easy as it could be as each contents listing needs to be viewed individually.

It was this last issue, finding articles within our online back issues, that led to a discussion between the authors and them embarking on a new project to increase access to this information for all members.

A searchable archive

We plan to create a searchable archive of the contents of the *Bulletin*. Users will be able to search for words or phrases within the title of an article or the name of an author. Searches could be limited by publication year, issues within a year or to a range of years. The search results would list the titles of relevant articles including the details of the authors and the *Bulletin* volume, number and page number of the article. Where appropriate a link would be provided to the downloadable copy of the *Bulletin*.

Work to date

We have already started work cataloguing the data and hope that a working prototype will be available to all members (via the member's area of the website) before the New Year. This working prototype will only contain a limited range of years. At this stage we plan to include details of all the articles published within the *Bulletin* in 1994, 1995 and then 2002 – 2011. We have already processed the data for 1994, 2004 and 2005. As the 2012 Bulletins are published we will add information on their contents to the database.

We need your help

A searchable database of *Bulletin* contents listings is only as useful as the information it contains and we cannot catalogue all of the content ourselves. We would like members of the society to volunteer to catalogue a specific volume (year), or volumes, of the *Bulletin*. The process is straightforward and can be done in many ways. The simplest approach is to retype the data from the contents listing of each of the *Bulletins* in that volume.

However, a more efficient approach has been tested by the authors (specifically Martin) and found to work well. This approach involves taking photographs of the back covers of the *Bulletins* using a digital camera. These photographs are then uploaded to a website where the text is extracted (using optical character recognition) from the images.



The resulting text files then need checking and formatting. The resulting data can then be emailed to us and we can add it to the database.

So, in summary, to contribute to this project all you need is:

- access to a volume of pre 2002 AES *Bulletins* (excluding 1994 and 1995)
- a digital camera
- access to the Web
- a little bit of spare time

Even if you don't have a camera you can help out by retyping the contents listings instead.

If you own a scanner then using that would be better than the digital camera approach suggested above and we would love to hear from you. However, we expect that more members own digital cameras than scanners and the more volunteers we have for this project the more extensive an archive we can create.

We are sure many of you will want to help out and all of the membership will benefit from a searchable archive of the contents of the *Bulletin*.

How to volunteer

We have only provided a brief overview of the process above and will happily provide more detailed instructions to any volunteers. If you would like to contribute to this project then please contact us indicating the *Bulletin* years you would like to catalogue. We can be emailed at:

bulletin-archive@amentsoc.org

It is important that you contact us before attempting to catalogue any content as we want to avoid the risk of duplicated effort and will be keeping a record of which years have already been done.

Further details and keeping up to date

We will publish information on our progress within the member's area of the AES website. This can be accessed here:

www.amentsoc.org/members/

We will also publish a record of which *Bulletin* volumes still need to be catalogued and will also provide access to the prototype search tool through the member's area.

Future plans

Those of you familiar with the *Bulletin* indexes will know that they contain more information than can be found within the *Bulletin* contents listings. The contents listings are a starting point and, once we have a



reasonable quantity of data, we can start adding some of the extra information to the database and building on the content within it. The first step is to catalogue as many of the articles as we can and then to build on this catalogue.

We can also begin to include other AES periodicals within the database so the resource could allow searching across all our periodicals in one go.

This project is well under way but **CANNOT CONTINUE WITHOUT MEMBERS VOLUNTEERING** and contributing data. The information we need is not difficult to obtain and we can provide assistance so please do get in touch as we cannot do it without you:-

bulletin-archive@amentsoc.org





**GREAT BRITISH INSECTS:
NATIONAL INSECT WEEK RETURNS**

25 June – 1 July 2012

www.nationalinsectweek.co.uk

The Royal Entomological Society will be celebrating all that is 'great' about British insects next year with the return of National Insect Week 2012. The Amateur Entomologists' Society is an official partner of this event. Next summer's National Insect Week will take 'Great British Insects' as its theme drawing upon the celebrations around the Olympic Games and the Diamond Jubilee of the Society's Patron HRH The Queen.

2012 will be the fifth time the Royal Entomological Society has celebrated National Insect Week, the biennial initiative to promote awareness of the value of a diverse insect world to the environment. Through a high profile launch and a nationwide programme of interactive fun events and activities for all the family, National Insect Week brings the insect world to life. An interactive website www.nationalinsectweek.co.uk gives visitors all the information they need to get involved, from finding out more about events taking place locally to a photography competition and advice on bringing more British insects into our gardens.

Supported by more than 50 national partner organisations concerned about natural history and biodiversity, National Insect Week first took place in 2004 and has built year on year. In 2010 alone the initiative reached an audience of over 104 million people through high profile media activity and over 200 events across the country.

Luke Tilley, National Insect Week coordinator, said: "We already have



some exciting plans in the pipeline including an initiative to create a 'dream team' of Olympic insects including the fastest, highest jumper and best swimmer. We'll also be working with a high profile chef to create some insect-themed menus to promote insects as a sustainable food source here in the UK. We will be marking the Diamond Jubilee of our Patron, HRH The Queen, by presenting her with specially bound copies of the Society's definitive guide to British insects which is being published in 2012."

"As usual, there will be a whole host of activities for kids including the gruesome, yet fascinating 'Crime Scene Insects' to get children interested in forensic entomology. Local and regional wildlife organisations will be hosting their own events up and down the country to allow children and adults explore the wonderful world of insects for themselves."

To learn more about National Insect Week and to get inspiration on how you or your organisation can get involved, please visit www.nationalinsectweek.co.uk. You can also register your own National Insect Week event through the website – just click on 'What's Going On'.

All National Insect Week enquiries to Jane Chamberlain or Annabel Hutchison at Cicada Communications on 01423 567111 or jane@cicada-comms.com / annabel@cicada-comms.com



Moths and Butterflies on Film

by Piers Warren

info@wildeye.co.uk

Lepidoptera, being such beautiful insects, have been filmed and photographed for well over 100 years. These days, with the advent of digital cameras (both still and moving image) it is within everyone's grasp to take stunning images and build a gorgeous collection of moths and butterflies encountered without harming a single one. However, the techniques and vast array of equipment now available can be highly confusing.

I have been running Wildeye (The International School of Wildlife Filmmaking) based in Norfolk, since 1999. The study of moths and butterflies has become a particular interest of mine (I am also an AES member) and so it was only a matter of time before we created a course specialising in the photography and filming of these insects. We ran the first one in July 2010 in conjunction with the Field Studies Council at their beautiful centre Flatford Mill on the River Stour close to the Suffolk-Essex border.

It was a great success. We ran two different moth traps (Robinson and Skinner) both nights in different locations, and collected a wide variety moths, including several different hawk-moth species, which were identified, photographed and then released. During the days we explored some of the photographic techniques in detail, and explored the grounds around Flatford Mill practising them. We found plenty of butterflies, some posing nicely for the cameras, some being more challenging, including Ringlets, Red Admirals, Green-veined Whites (a mating pair and other singles), Commas and Meadow Browns.

Back in the classroom the group were able to have a go at extreme macro work (with supplied lenses and other equipment) and also time lapse filming (which can be done in high definition quality with a standard DSLR). For subjects, in addition to what we found locally, we had brought along a variety of larvae including hawk-moth caterpillars and those of the bizarre-looking Lobster Moth. At the end of the weekend the group enjoyed an informal photography competition (of shots taken during the course) which was won by a stunning close-up shot of a Large Skipper.

The other tutor for this weekend was Mike Linley, another entomology-addict and former Survival producer. He and I are currently working on a film about British Hawk-moths (www.wildeye.co.uk/britishhawkmoths) and we will be running the course at Flatford Mill again in July 2012 (www.wildeye.co.uk/moths.html).



A Longhorn Beetle from Southern France

by Nick Holford (3804)

8 Ruddle Way, Langham, Rutland, LE15 7NZ.

Whilst holidaying in the south of France during late April, early May this year, I found an interesting Longhorn beetle. The purpose of the trip was leisure, so I did not have any “beetling” equipment with me. However, as others will no doubt know, an entomologist’s eyes are very much attuned to finding insects at 20 metres!! We were looking at the Chateau des Ducs de Joyense (Chateau of the Joyful Dukes) at Couiza in the Aude, France – a town on the D118 in the south, close to the Pyrenees. Whilst we were walking around the adjacent recreation field (see Fig. 1), I found a large longhorn on the top of part of the scaffolding pole fence around the field. We photographed it in situ (see Fig. 2), and then I collected it to photograph it in more detail back at my daughter’s house in a nearby village (Plate 1).

Collecting data – Found on scaffold-type pole acting as fence top, around the field alongside the *Chateau des Ducs de Joyense* (Chateau of the Joyful Dukes) at Couiza in the Aude, France, 3rd May, 2011

The beetle was not happy at being disturbed, and opened its scimitar-like mandibles wide. However, with care it was relatively easy to handle. I took a range of close-up photographs, as well as general ones of the whole insect. It was a species I did not recognise at all, so I brought the dead insect back home.

I fairly quickly identified it as *Morimus asper* (Sulzer) using Bense’ key to European Longhorn beetles. The genus *Morimus* is confined to the Palaearctic Region. In the text, Bense states that the key is only usable for identification of typical examples of *M. funereus* and *M. asper*, as they are regarded as valid species within his work. This comment made me curious, so I did various literature searches and found that quite a dispute has arisen over the validation of the species within this genus.

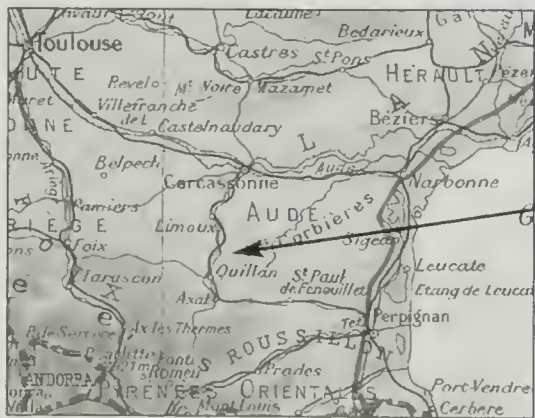
Another complication has been that the genus is sometimes referred to as *Morinus*, as is the case in my two books on Cerambycidae in the Iberian Peninsula. Taxonomic work by the Russian entomologist, A. I. Miroshnikov, has confirmed the genus name to be *Morimus*. The genus is included in the tribe Phrissomini of the Subfamily Lamiinae and in the international list of species in this tribe there are listed 12 species of *Morimus*! However, J.-M. Luce, 1996, states that the genus *Morimus* comprises three or four species, two of which are distributed across Europe – *M. asper* (Sulzer, 1776) and *M. funereus* Mulsant, 1863, which



Figure 1. The beetle was resting on the scaffold pole that forms the fence top alongside the driveway, more towards the corner of the field to the right.



Figure 2. The beetle in situ on the horizontal fence pole.



Couiza

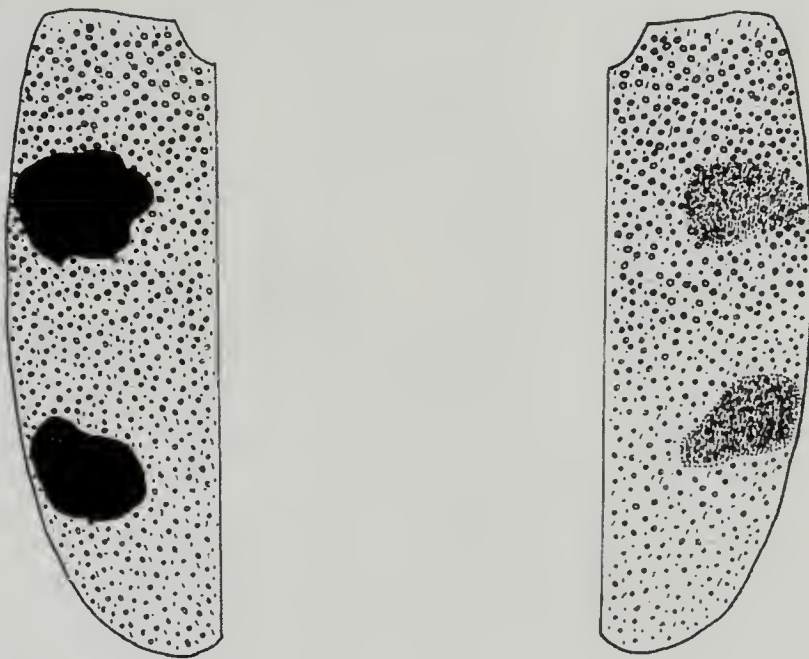
Figure 3. Location of Couiza in the Aude.



is broadly in agreement with Bense. There is also mention in other literature of a possible third European species, *M. ganglbaueri* Reitter, 1894. This is found in Bosnia and Herzegovina, Albania and the Dalmatian coast. However, the international list of species in this tribe mentioned above does not include it amongst its list of twelve species!

M. asper is the only species found in France, although *M. funereus* was recorded historically. However, this was actually a mis-determination that was sadly repeated by others. The mis-determination led to a lot of other mistakes being made because the distribution areas of both species largely overlap in south-eastern Europe. Along with this must be realised the fact that some specimens of *M. asper* may show colouring that closely resembles that of *M. funereus*. So further mis-determinations may result. All this has led to a lot of confusion and errors in the distribution of the two species. Not surprisingly, there has resulted much argument in the literature as to whether they are distinct species or not! However, the fact that both species occur together may well indicate that they are two distinct species and not two subspecies, or ecotypes, of *M. asper*. On top of this, it is possible that both species are so closely related that hybridisation may occur and further the confusion.

Morimus asper may be identified from *M. funereus* from features of the elytra, thus:-



funereus – Elytra with four distinctly contrasting black spots of velvet pubescence, granulation of the elytra not visible within the area of the spots. Elytra black with recumbent silvery-grey pubescence.

asper – Elytra with four indistinct spots of dark pubescence, granulation of the elytra distinctly visible within the area of the spots. Elytra black, typically with recumbent grey and brown to blackish-brown pubescence.

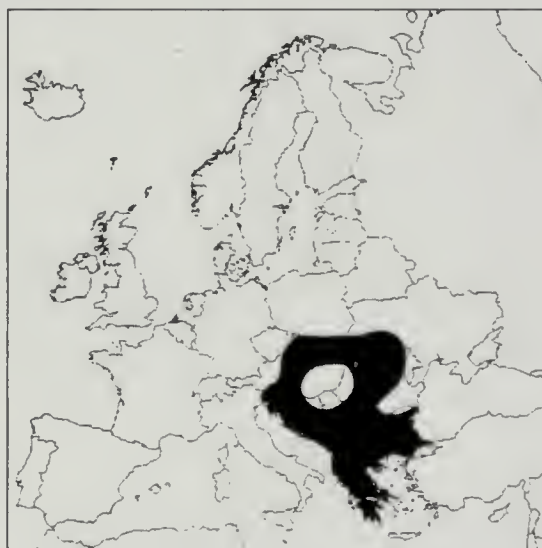


The adults of both species are large, about 16-38mm long, excluding the antennae. The male has much longer antennae than the female, and in *M. asper* they are considerably longer than in *funereus*. The females of both species have similar length antennae. These beetles are apterous (wingless) and the elytra are fused along the mid-line, so forming a surface that is more resistant to damage. Also, both species appear to be polyphagous in broadleaf trees (*Fagus*, *Populus*, *Tilia*, *Acer*, *Salix*, *Carpinus*, *Alnus*, *Quercus*, *Hedera*) and in conifers (*Abies*, *Pinus*, *Cedrus*). The adults stridulate, making a screeching noise. The adults are diurnal, and compared to the adults of other longhorn beetles are of a calmer disposition. Individuals may be found with mutilated limbs, caused by intraspecific struggles with rival males for a female.

The larvae are white and fleshy, with a sclerified head. They feed within thick roots, moist stumps and fallen trunks. The life-cycle seems to last several years, the adults emerge during April to August, my own specimen was found on the 3rd of May, 2011. Usually they are found on the ground and on the host-plants, my own being found on a horizontal metal fence pole. How it got there, I do not know – there were no apparent food-plants nearby and being apterous they cannot fly.

Distribution

Because of the disputes and errors that have been involved in the identification of the two species (*asper* and *funereus*) many records cannot be attributed definitely to either species. According to Bense, only *M. asper* is found in France, Switzerland and Italy (exclusive of the northeastern part), but from north-eastern Italy to southern Greece both species are found. However, further literature checks indicated that *M. funereus* seems to be a species that is confined to the deciduous and mixed forests of



European distribution of *Morimus funereus*.

south-eastern Europe and the Middle East. Its main distribution area seems to lie in the temperate forest and eastern Europe regions with offshoots into Central Europe (Bohemia, Slovakia), the Alps (montane zones) and the Mediterranean Region (Greece, Italy, former Yugoslavia, Hungary, Romania, and Bulgaria). Whereas, *M. asper* is found in south-western and

European distribution of *Morimus asper*.

southern Europe (northern Spain, central and southern France, Corsica, Sicily, Italy, southern Austria, Bohemia, Slovakia, former Yugoslavia, Hungary, Romania, and Bulgaria).

In Britain, *Morimus asper* has been found in timber yards via imported wood. It was found on a timber yard on Anglesey. Brian Levey, curator of Coleoptera at the National Museum of Wales, said: "This is probably the first time the"

beetle has been found in Wales and, as it originates from a much warmer climate, it is unlikely to become established in the UK."

A male specimen was found in the Summer of 2009 by a couple in Wrexham, who discovered it in a piece of oak which was imported to the UK from France. It was passed to Liverpool's BugWorld Experience where the staff named it "George".

Morimus asper is also known as the "Capricorn beetle" and is considered to be a species that is in decline, though Chatenet records that it is common in the south of France.

Synonyms

Morimus asper

Morimus asper subsp. *asper*

Morinus asper

Morinus asper subsp. *Asper*

Cerambyx asper

Morimus lugubris

Lamia lugubris

Morimus saper

References

- Bense, U., 1995 *Longhorn Beetles*, Margraf Verlag.
- Du Chatenet, Gaëtan, 2000 *Coléoptères Phytophages D'Europe*, N.A.P.
- Luce, J.-M., 1996. *Morimus funereus* Muls, 1863 in *Background information on invertebrate of the habitats directive and Bern Convention*, Part 1 Crustacea, Coleoptera and Lepidoptera. (Nature and environment, no. 79), Council of Europe.
- Sama, Gianfranco, 1988 *Coleoptera Cerambycidae*, Fauna D'Italia, vol. 26, Calderini, Bologna.
- Vives, Eduardo, 2000. *Coleoptera Cerambycidae*, Fauna Iberia vol. 12, CSIC
- Vives, Eduardo, 2001. *Atlas fotográfico de los cerambícidos ibero-baleares*, Arganio edition.





The Mystery Solved

by Wesley Caswell (3133)

A postscript to my article in the AES *Bulletin* no 497, page 140: 'A True Story'.

Some months later (perhaps we don't clean our sofa often enough!) my daughter Esther was doing a spot of tidying and rearranging of cushions on our sofa, when suddenly I heard a very distressed daughter telling me to come quickly – there was a horrible 'THING' under the covers of our sofa in one of the corners, and could I DO something about it at once...

Yes – you've guessed it – there was the empty cocoon of the *Automeris* moth which had crawled up my arm back in April!



A Longhorn Beetle from the Scottish Highlands

by Phil Wilkins

Beech House, Church Road, Stockton, Beccles, Suffolk, NR34 0HJ.

Nick Holford's article in this issue of the *Bulletin* reminded me of a similar experience with an impressive Longhorn Beetle. This was in August 2008. We were on a family holiday to the Scottish Highlands. Early in the week we had seen signs for various sporting activities on Loch Insh near Aviemore. We decided to spend a day there.

After spending some time having varying success with the water-sports, we all decided to try our hand at archery. This is where the 'entomologist's eye' (as Nick puts it in his article) came in. The archery area was lined down one side by pine logs. My eye was drawn to an impressive beetle almost 30mm long. Many people had walked straight past it. However, once attention was drawn to it, it was the focus of interest with quite a few gasps of surprise. Fortunately, I had my camera on me and was able to take some photographs (Plate 2).



The beetle proved to be a specimen of the Large Poplar Longhorn Beetle *Saperda carcharias* (Linnaeus 1758) (Cerambycidae). This is much the largest of our three native species of *Saperda*. It is cylindrical in form. The body is black, but the overall appearance is quite mottled. This is due to a patchy covering of dense yellow pubescence.

Saperda carcharias was first described in 1758, Linnaeus including it in the 10th edition of his *Systema Naturae*, under the name *Cerambyx carcharias*. It was later renamed as the type species of a new genus *Saperda*. The specific epithet *carcharias* is derived from the Greek for ragged, sharp or jagged.

The Large Poplar Longhorn Beetle *Saperda carcharias* (Linnaeus) is classified as a notable A species considered to occur in thirty or fewer 10km Grid Squares of the National Grid (Hyman and Parsons, 1992). It seems to have a relative stronghold in the Scottish Highlands, with records from at least thirteen 10 km squares. It is also found in central and eastern England.

Larvae of *Saperda carcharias* are found in trunks of Aspen (*Populus tremula*) the preferred larval tree. However, other Poplar species may be utilised, as well as *Salix* and occasionally *Quercus* (Uhthoff-Kaufmann, 1991). *Saperda* probably spends between two and four years as a larva within the tree (Hyman and Parson, 1992). The adults emerge during July and August and may be found until October. The adults feed on the leaves of the host trees.

References

- Hyman and Parsons. 1992. *A review of the scarce and threatened Coleoptera of Great Britain, Part 1*, UK Nature Conservation Series Number 3, Joint Nature Conservancy Council, Peterborough.
- Uhthoff-Kaufmann, R. R. 1991. *The distribution and occurrence of the genus Saperda F. (Col. Lamiidae) in Great Britain*. Entomologists Record 103: 129-134.





Predation of an African Grass Blue *Zizeeria karsandra* (Moore, 1865) by the crab spider *Thomisus onustus* (Walckenaer, 1805) in Cyprus

by Eddie John (7937)

Coach House, Church Street, Cowbridge, Vale of Glamorgan, CF71 7BB, UK*

eddiejohn100@gmail.com • www.cyprusbutterflies.co.uk

*Corresponding author

and Sami Tamson

171/A Zodeia, Cyprus

stomsoncy@gmail.com

Butterflies and their early stages perform an important role in the food chain and frequently fall prey to a variety of enemies. In Cyprus, these include vertebrate predators e.g., birds such as the Bee Eater (*Merops apiaster*) and Cyprus Pied Wheatear (*Oenanthe cypriaca*), and the reptiles, European Chameleon (*Chamaeleo chamaeleon*) and the Starred Agama (*Laudakia stellio cypriaca*), as well as many invertebrate predators. As in other countries, invertebrate enemies may range from tiny parasitoid wasps to the larger mantids and dragonflies.

Some predators, such as dragonflies, patrol their territories actively seeking out their prey and relying on speed and supreme agility to ensure a capture whereas others adopt a more passive role until an opportunity arises enabling them to ensnare their victim. Among such ambushers, spiders of the Thomisidae family depend upon stealth and camouflage, lying in wait until an unsuspecting insect alights at their lair, often a flowerhead.

Body shape, arrangement of legs and crab-like movement earn these spiders the popular name of crab spiders. Among them, *Thomisus onustus* is common in Cyprus. With certain limitations, crab spiders have the ability to adapt both body and leg coloration to blend with the surroundings – see for example Makris (2003, pp. 66 and 67) which illustrates suitably camouflaged crab spiders on purplish-pink *Cistus creticus*, yellow *Helichrysum* sp. and (a probable identification, this) *Dittrichia viscosa*.

The photographs (front cover and Plate 3) accompanying this article were taken in Morphou, Cyprus, in August 2009 by the second author, a regular contributor to the Cyprus Butterfly Recording Scheme (see References), and show the stealthy approach of *T. onustus* towards an unsuspecting African Grass Blue butterfly. To provide a sense of scale, *Z.*



karsandra is one of the regions 'smallest' butterflies having a wingspan of up to 25mm. However, *T. onustus* is more than capable of attacking much larger butterflies such as the Painted Lady (*Vanessa cardui*) (Makris, 2003 p. 67). In our illustrated example, the African Grass Blue had alighted on the endemic marjoram *Origanum marjorana* var. *tenuifolium* (Weston) growing near a streambed, also the ideal habitat for the butterfly's hostplant, *Polygonum equisetiforme*. Within seconds, the crab spider had seized its prey and injected its paralysing venom.

What had been a newly emerged pristine butterfly just moments earlier had suddenly become another involuntary link in the food chain.

Acknowledgements

We thank Alexander McOwan for confirming the identity of the crab spider and Torben Larsen for his comments on a draft of this article.

References

- Makris, C. 2003. *Butterflies of Cyprus*. 329 pp. Nicosia.
Website - Cyprus Butterfly Recording Scheme: www.cypusbutterflies.co.uk



Photographing the Norfolk Hawker

by Phil and Eleanor Wilkins (Photographs by Eleanor Wilkins)

Beech House, Church Road, Stockton, Beccles, Suffolk, NR34 0HJ.

One of the advantages of living in Norfolk is the close proximity of excellent natural habitats. The entomologist is spoilt for choice with heaths, woods, brecks, coasts and wetland habitats all within a few hours journeying time. Each of these habitats harbours specialist insects.

On 26th June 2011, we headed off to the RSPB reserve at Strumpshaw Fen in the Norfolk Broads, near to Norwich. The Broads consist of a fascinating man-made wetland habitat. They are well known to the entomologist for two species in particular – the Swallowtail butterfly *Papilio machaon* Linnaeus and the Norfolk Hawker *Aeshna isosceles* (Muller). It was the latter species we were hoping to see. It is a wonderful dragonfly unique in Britain to the Norfolk broads (Plate 4).



The RSPB reserve has a healthy colony of Norfolk Hawkers and the timing was right for the flight period of the adults. The best part of the reserve to see these dragonflies is the grazing marsh. Thus we concentrated our efforts here. We were soon rewarded by the sight of several individuals patrolling the drainage ditches.

This hawkler is very distinctive and easy to identify, even from a distance. It is a large brown hawkler dragonfly (*Aeshna* species). Unlike *Aeshna grandis* (the Brown Hawker) it has clear wings and vivid green eyes. The species name *isosceles* refers to the yellow triangle on the second abdominal segment.

While we were observing the dragonflies we attempted to take some photographs. We were lucky to spot one individual which was reasonably still. In the resulting photographs, we realised that the female Norfolk Hawker is laying her eggs.

The species has always been rare and local in Britain. It has been well-studied. In the Norfolk (and Suffolk) Broads it is dependent upon ditches which contain Water Soldier *Stratiotes aloides*. This floating plant with sharp, spiky leaves is sensitive to pollution and salinity changes from tidal flooding. It floats in the summer months, but accumulate calcium in the leaves. This makes it sink to the bottom during the winter months. The Norfolk Hawker utilises this feature to its own advantage. As most schoolchildren can tell you, the bottom of a pond or ditch is the warmest part in winter due to the density properties of water. Hence any eggs laid on Water Soldier plants are immediately taken to a relatively warm microhabitat to spend the winter months. The photographs do indeed show the female placing her eggs on the Water Soldier leaves just below the water surface.

Interestingly, *Aeshna isosceles* is not reliant upon Water Soldier in Europe. This may be due to temperature differences or other factors. Norfolk Hawkers are now regularly found at Minsmere RSPB reserve in Suffolk, outside the Broads. This colony may not be dependent on Water Soldier. Hence it may have colonised from Europe rather than the Broads which is closer to hand.





A Very Early Crimson Speckled Footman, *Utetheisa pulchella* (Linnaeus)

by David Keen (3309L)

Casto Bancalero 11, 41650 El Saucejo, Sevilla, Spain

This beautiful moth is very common in this part of Spain in October and early November – frequently coming to light or being found resting on walls by day. They can also be disturbed from their resting places on low growing plants during the day in the local countryside. However, I have not previously seen it in any other months of the year.

Thus I was very surprised to disturb one in the local fields on 18 January 2011. At first, as it flew off, I doubted that it could possibly be a Crimson Speckled and wondered if it was just another one of the white butterflies that were out that day. Luckily, however, it settled after a very short flight so I was able to walk right up to it and to confirm its identity. I left it resting in the warm afternoon sun. No specimens were seen in other trips to the countryside in January and February 2011.

This would, indeed appear to be a very early record as Manuel Diaz, writing in 1998, says that it flies in only one generation in Andalucia from the end of the summer until the beginning of autumn – presumably from September to October. Josep Ylla Ullastre *et al*, in their book published in May 2010, write that there are two or three generations in Spain, from April to November. My record for more or less the middle of January would seem worth mentioning.

References

- Diaz, Manuel. 1998. *Mariposas Diurnas y Nocturnas de Andalucia*. Centro Andaluz Libro, S.A. Sevilla. p 204.
- Ylla, J., Macia, R. y Gaston, F.J., 2010. *Manual de identificacion y guia de campo de los Arctidos de la Peninsula Iberica y Baleares*. Argania editio. Barcelona pp 261-4.





Some late Orthoptera records for 2011 in VC29

by Rob Partridge (8956)

11 New Road, Mepal, Ely, Cambridgeshire CB62AP

rpartridge3@aol.com

For me, much of the summer in 2011 was taken up by gathering records for the forthcoming national atlas for dragonflies. As both the Odonata and Orthoptera enjoy the same weather conditions – warm, and preferably sunny too – and as such days seemed to be relatively scarce in July and August this year, I did not visit my local sites for bush-crickets and grasshoppers until early October.

On the 6th of that month, in the afternoon I went up onto the old airfield near Mepal, in Cambridgeshire. This is a long-established brownfield site, though like many others the threat of development is ever-present. It was a very windy day, gusting to force 6 or 7 at times but there were occasional sunny periods; according to my car, the temperature was around 60°F. On my regular walk of about half a mile, and using the ultrasound detector, six Long-winged Coneheads *Conocephalus discolor* were located, most amongst the dying stems of Greater Willowherb *Epilobium hirsutum* in sheltered locations. Five Speckled Bush-crickets *Leptophyes punctatissima* were found in the same way but these were all in low-growing bramble *Rubus fruticosus* bushes. A single Roesel's Bush-cricket *Metrioptera roeselii* was heard calling in a sheltered grassy hollow – they are often numerous on this site. Despite much slow walking through the long grass, only two grasshoppers were found. The one that I managed to capture was a female Lesser Marsh *Chorthippus albomarginatus*. Late September had been quite warm for an extended period and I was surprised that so few grasshoppers had made it through to early October. Although some later trips would find Bush-crickets in better numbers, this was not the case with grasshoppers. When I reached the car and noted down what I had found, I was struck by the absence of one species in particular – the Dark Bush-cricket *Pholidoptera griseoaptera*. This is one that I am still able to hear despite the advancing years, and it is also very noticeable on the detector, but not one had been encountered. It is usually the last Orthopteran that I find in the year.

On the 10th October, whilst on my regular route for walking the dog, I did hear two Dark Bush-crickets calling quietly at dusk in some bramble bushes along The Rushway near my home. This old track – no-one seems to be quite sure how old but it apparently derived its name from being a route into the fens along which harvested reeds and rushes were carried away – has provided some good records of butterflies over the year with



Plate 1. *Morimus asper*, found in Couiza, France by Nick Holford. Note the antennae in the vertical “aware” position.



Plate 2. The impressive Large Poplar Longhorn Beetle *Saperda carcharias* (Linnaeus) found near Loch Insh, Aviemore, Scotland (photographs by Phil Wilkins).

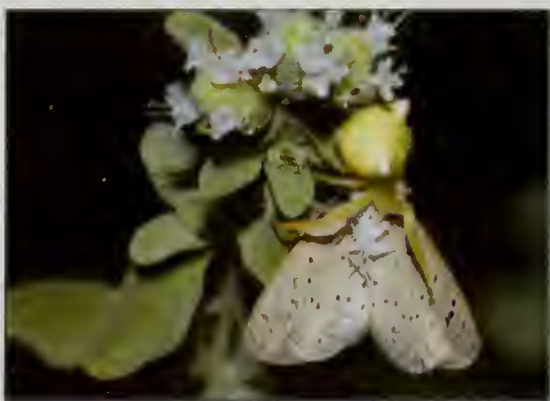


Plate 3. Predation of an African Grass Blue butterfly (*Zizeeria karsandra*) by the crab spider *Thomisus onustus* in Cyprus. Within seconds of landing, the crab spider had seized the butterfly and injected a paralysing venom. The sequence of photographs, including that used on the *Bulletin* cover, occupied about two minutes, but after a stealthy approach, the attack was swift.



Plate 4. Female Norfolk Hawker *Aeshna isosceles* (Muller) ovipositing on Water Soldier in a drainage ditch, Strumpshaw Fen, Norfolk (photographs by Eleanor Wilkins).



both Purple *Neozephyrus quercus* and White-letter *Satyrium w-album* Hairstreaks maintaining a presence. A single Dark Bush-cricket was calling here on the 13th – none were heard here after that date.

Returning to the airfield on the 15th October, I found very different weather conditions; a very fine autumn afternoon and temperatures well into the 60°F in sheltered sites. At least ten Long-winged Coneheads were present, along with three Field Grasshoppers, *Chorthippus brunneus* all together in short grass by the footpath. Encouraged by the exceptional weather that afternoon, I drove to Aldreth, a few miles to the south-east, in the hope of finding a late Great Green Bush-cricket *Tettigonia viridissima*. I spent more than two hours searching around the riverside fields without success but this would have been my latest ever record if I had found one. Several other species were present, including one Roesel's Bush-cricket singing loudly in its small patch of sunlight amongst the long grass – I was pleased still to be able to hear it from several yards away. Long-winged Coneheads were abundant in the herbage along the tracks. Experience has taught me that the best way to see these, after locating them with the detector, is to sit down and watch for movement. After a few minutes I had located three females and a male calling so strongly that I was able to hear it unaided from some three feet. One of the females was then watched egg-laying, something that I had not seen before. The textbooks say that grass stems are used but in this case a dead stem of the common nettle *Urtica dioica* was chosen. The ovipositor is so long that the insect has to fully extend its rear legs in order to gain the angle needed to pierce or probe into the stem – at its fullest extent the insect then resembles a miniature drilling rig! I also noticed a considerable size variation in the three females that I observed, a difference in overall body length of at least 5mm. Four Dark Bush-crickets were found, again in brambles, but no Speckled. On the river bank, three Lesser Marsh Grasshoppers were calling weakly in the sunshine, and two Field Grasshoppers were also heard. One of the benefits of age, or so I tell myself, is that one learns to appreciate more than just the groups that most intrigued one earlier in life, and a quick look around the little hump-backed bridge over the river revealed that the otter *Lutra lutra* is still present on this stretch of the Old West river. Close by I also found the remains of a huge wasps' nest that had been dug out a month or two earlier – no doubt the work of a badger, *Meles meles*. Finally, when I arrived home late on this lovely afternoon, the last rays of the sun were shining on the front wall of the house. A movement in the cotoneaster bush caught my eye – a female Speckled Bush-cricket.

The 21st October was another fine and unseasonably warm day after a couple of colder ones. On the Counterwash, adjacent to the Ouse Washes



RSPB reserve near Mepal, a Dark Bush-cricket was calling from a scrubby bramble patch, one Roesel's was calling and one female Lesser Marsh Grasshopper was noted. The sedges and tussocks of various tall marsh grasses in this area hold a large colony of the Short-winged Conehead *Conocephalus dorsalis* and a number were found with the detector. Long-winged Coneheads are also present here, and in the lower temperatures of autumn their call is slower and more inclined to 'wind down' but the difference between the two species' calls was still quite clear. Whilst checking by sight the presence of both species I captured a puzzling individual; it was a female Long-winged in every respect save one – it had short wings. I took this home and eventually emailed a picture to Dr Peter Sutton. He confirmed that it was a late instar nymph but on a surprisingly late date. It remained on my desk until the 27th, when I noticed that the skin had been cast and an adult female was drying off in the cage. Later that day it was seen to consume most of the cast-off skin. It was returned to the original site on the 28th October.

On the 24th October whilst walking with some friends along the Widdens Drove near my home I heard the call of a Meadow Grasshopper, *Chorthippus parallelus*. This was on a south-facing bank that holds all three common species of grasshopper in the summer and I also have a record here of the Common Green Grasshopper, *Omocestus viridulus*, a much rarer species in Cambridgeshire. The Meadow Grasshopper was located, and turned out to be a very bright green male.

I continued to find Long-winged Coneheads in various locations to the end of the month, with 17 calling on the old airfield on the 28th. On the same date, two Dark Bush-crickets were heard calling in a hawthorn and bramble hedge after dark in the village. This, however, is far from the latest date on which I have recorded this species; that was on the 27th of November 2006, my latest record for any Orthopteran. My final record (so far) this year is of a Speckled Bush-cricket found in a hedge at dusk with the detector on the 12th November.

The Long-winged Conehead was by far the most numerous and frequently encountered species in my month of recording, an interesting finding in view of the fact that it did not arrive in the county of Cambridgeshire until 1998. The Dark Bush-cricket perhaps a poor year in general in that on reflection I did not hear many in the summer when it is generally very common, even in well-vegetated ditches between fields in the arable fens. Where most of the grasshoppers went by early October remains a mystery.

Many thanks to Dr Peter Sutton for his identification of the specimen.



Letter from Spain – 14th in a series – Return to Benafim, May 2011

by David Keen (3309L)

Calle casto Bancalero 11, 41650 El Saucejo, Sevilla, Spain

I expect that you already have two questions to ask – where is Benafim? and why would anyone want to go there, let alone make a return journey? The easier question to answer is the first, so here goes.

Benafim is a small village in the Algarve region of southern Portugal. It is situated on the N124 road approximately halfway between the slightly larger villages of Alte and Salir. On a lot of maps it is shown as “Benafim Grande” – Great Benafim – to distinguish it from Benafim Pequeno – Little Benafim. However, it is only shown as “Benafim” on road signs; but “Benafim Pequeno” does appear on one sign in the middle of Benafim village indicating that the “Little” version is situated a short distance to the north.

Why to return is not so simple to answer. We have to go back to 16 May, 1996 when, during a two week holiday in the Algarve I stumbled upon this village during an afternoon drive. Taking one of three roads out I drove down a slight hill and came to a road junction on the left which formed a sharp hairpin bend. Having negotiated this bend I saw an area of wasteland to the right, stopped the car and went to investigate. Having hopped over a low wall I noticed a number of large stones within an area of low growing grass and other plants. As I rolled back the first stone, something shot off like greased lightning! The second stone was approached with more caution and I rolled that one back very slowly. This time several things shot off in all directions but I did manage to capture one – a very strange looking, mainly black, cricket with a sort of flap protruding from the front of its head. Once the specimen had been secured I rolled over a third stone and, once again, several of these insects shot off – although I did manage to catch a second example. Other stones were turned over and some revealed more crickets while the rest were “uninhabited”.

I failed to secure further specimens despite my best efforts and other stones that I looked under in many different parts of the Algarve during the rest of the 1996 holiday revealed no more examples. All the stones were, of course, carefully returned to their original positions. OK, so what are these strange crickets. They took a while to identify because they did not appear in any of the books I then owned. Eventually, I gave one to the University Museum in Oxford and my good friend Darren Mann came up with the name – *Scobius lusitanicus* (Rambur). It is a species that



originally came from North African (where several similar species are found) and has settled in parts of the south of Spain and Portugal. Both my specimens were males.

Since moving here in 2004, I have looked for this species in many places but only have one definite record – that of another male found dead in a swimming pool near here in May 2005. I have two female crickets, found near that pool at other times, and these may or may not be of this species. The additional books I now have mention and illustrate the males adequately enough but only refer to the female as having a triangular shaped head, which mine do! There is no mention of the female having a flap – which mine do not – so I am still not sure if they are of this species or not. They certainly look entirely different in form and are brownish in colour.

Since 1996 I have yearned to return to that area of wasteland with the hope of finding a female to positively identify. Thus, when my wife suggested a short break in the Algarve in May 2011 I jumped at the idea. We based ourselves in the town of Silves – more or less in the centre of the area but back from the coast – for a week. Now, could I find that bit of land? On 19 May I found Benafim easily enough but I was unable to remember which of the three roads out I had used previously. So I had to try each one in turn. Yes, you have guessed it – it was the third one which led down to the hairpin bend. This then turned out to be the biggest disappointment of the holiday – the area of wasteland was completely enclosed by two metre high chain link fencing. There was no way in.

A few choice words later, I drove to other areas of wasteland in the area, checked under all suitable stones, and found ... nothing! Later I checked under stones in other places during the holiday – but to no avail. Ah well, what will be, will be or, as they say in Spain, “Que sera, sera”!!

The holiday, except for the visit to Benafim, was not a bug hunting expedition but a chance for my wife and I to have a break and to re-visit places we had not seen for 15 years. However, other insects were seen, a few collected and the following records might be of interest to others visiting the area.

During the week I saw a total of sixteen species of butterfly in various locations. One afternoon we returned to the village of Sesmarias where I had collected a good series of insects on an area of wasteland during holidays spent in the village in 1995 and 1996. Regular visitors to the Annual Exhibition may recall seeing some of my displays over the years. One of the villas we had hired then was now more or less a ruin and the beautiful garden of the other was now being used to park oil and fuel



distribution vehicles. As for the wasteland, with the exception of one small area, it was now built on and was covered by a housing estate of villas, bars and associated roads. The remaining small area was now overgrown and barely penetrable. However, I did force my way through some bushes and saw the Large White, *Pieris brassicae*, Meadow Brown, *Maniola jurtina* and the Long-tailed Blue, *Lampides boeticus*. Strangely enough, the latter was my first record for this species from this area of the Algarve.

On 16 May, which was an extremely windy day, we went to Sagres which is right down to the south-west and very exposed! Perhaps not a good idea as it was difficult to walk let alone see anything! However, in a small area sheltered from the wind by the walls of the old fortress I saw two more species – the Common Blue, *Polyommatus icarus* and the Painted Lady, *Cynthia cardui*. Two days later, we went to see the series * of reservoirs north of Portimao and added the Small White, *Artogeia rapae*, the Spanish gatekeeper, *Pyronia bathseba* and the Blue-spot Hairstreak, *Strymonidia spini* to my list. The last named was very common in an area around the Barragem do Arade reservoir.

Two days after that we went to re-visit the mountain top known as Foia de Monchique where there is a car park and restaurants at a height of 902 metres. Here you get a wonderful over much of the Algarve and on a clear, haze free day (which this was not!) you can actually see the border with Spain. Several *icarus*, *rapae* and *cardui* were seen together with a few Clouded Yellows, *Colias crocea* and a Red Admiral, *Vanessa atalanta*. There is also a pond, surrounded by reeds, by the side of the car park and a dragonfly was seen skimming over the surface of the water. This was clearly a male of one of the species of *Orthetrum* but I was unable to get close enough to give a more precise identification. On the way back to the hotel in Silves, we stopped off at a bar in Alcaria do Banho for a snack and afterwards explored two areas of wasteland further down the road. Here *jurtina* and *rapae* were seen in good numbers together with three additional species. First we saw a pair of Brimstones, *Gonepteryx rhamni*, then a Speckled Wood, *Pararge aegeria* in the dappled shade of some trees followed by several Lulworth Skippers, *Thymelicus actaeon* on an area of rough grass.

In the evening we walked along by the river in Silves and eventually had a much needed rest on a bench in the gardens in front of the Municipal indoor swimming pools. Along the path were a series of flower beds with a tree in the middle of each, surrounded by Lantanas, in full bloom. Whilst sitting there at six o'clock, I noticed a shadow of a large butterfly coming towards us. Out of nowhere there appeared a magnificent Monarch, *Danaus plexippus*, which for the next fifteen



minutes flew up and down between the beds of lantana stopping frequently for a feed. Then, as suddenly as it had first appeared, it was gone – over the lawns and ... to who knows where! Several times it had settled right in front of us – a truly wonderful sight. This is the first time that I have seen this species in the wild – something else I will never forget. Whether this specimen was from a local colony or whether it had migrated from one of the colonies on the Canary Islands or in southern Spain, I do not know.

On the last full day of our holiday we visited Loule which is the capital of the Algarve. In the town centre I saw another *jurtina* and my fifteenth species – the Small Heath, *Coenonympha pamphilus*. During our return journey to Silves in the afternoon we stopped by some wasteground on the main road near the village of Poco Novo. Among a lot of wild flowers I saw yet more *jurtina* and *bethseba* along with the final species of the holiday, a male Cleopatra, *Gonepteryx cleopatra*. There is just one last record to mention – another *rapae* seen near the banks of a river during a brief stop at Vila Real de Santo Antonio on our way back to Spain.

Having discussed the butterflies and dragonflies, let me now tell you about the beetles that I came across. A cerambycid was found at Sagres on 16 May. This was later identified as a specimen of *Chlorophorus trifasciatus* (Fabr.) It is similar in form to the Wasp Beetle, *Clytus arietis* but the head, thorax and antennae are reddish brown in colour and the marks on the elytra are whitish. It is found rather locally throughout the Iberian Peninsula where the adults are attracted to various flowers, including thistles. The larvae are said to develop within dead oak branches. This was my first sighting of this species which does not appear to be present in the province of Sevilla in my part of Andalucia.

Various beetles from the family Tenebrionidae were to be seen running across a path through sand dunes behind the beach at Praia do Alvor near Portimao on 20 May. These included a specimen of one of the three species of the genus *Pimelia* that have been recorded from the Algarve. Of these three, we can safely discount *P. maura* Solier as this does not have the series of ridges on the elytra that my specimen has. Thus, I am left with either *costata* Walti or *incerta* Solier but I will need more time to decide which one I have as they are somewhat difficult to separate. Another tenebrionid was found dead by the river at Vila Real de Santo Antonio and this is of the species *Akis granulifera* Sahlberg which is found in the Algarve and the Andalucian provinces of Huelva and Cadiz.

Regular readers of my "Letters from Spain" (I hope such members do exist!) will be aware that I have written about the snail eating *Drilus* beetles in this series of articles. Another of these larvae was seen on the



path in the sand dunes behind the beach at Praia do Alvor. It was not possible for me to consider bringing it back to Spain to rear so I cannot say which species is involved. I think it was a young specimen but its body was of uniform width, unlike the ones that I have found in Spain which have all been pear shaped, wider towards the tail end.

Whilst walking on a track in the mountains south of Cavalos, near Almodovar in Beja – north of the Algarve – on 19 May I came across a female oil beetle, *Meloe* sp. which was uniform matt black in colour and rather thinner than other specimens of the genus that I have found locally in Spain.

We now come to the most interesting species of beetle that I encountered on this holiday. For our evening meal on 17 May we had decided to re-visit one of the seafood restaurants by the sea in the village of Alvor. After finding a place to park the car we had time to spare so went for a walk around the harbour to see the boats etc. There had been quite a bit of rain that day and consequently there were plenty of puddles beneath the palm trees which we had to walk round. As we were avoiding one such puddle I noticed what looked like an upside down weevil in about 50 mm of water – but it looked far too big for a weevil. I did manage to extract it from the water and it was, indeed a weevil – but what a weevil! It was about 40 mm (1.5 inches) long, reddish brown in colour with brown and black spots on the thorax and lines on its elytra. A real giant among European weevils and far larger than any of the species I have encountered previously.

Once back at home, the specimen was set and then I tried to identify it. Of course, it does not appear in any of the English, French or Spanish books that I have so I decided to use the internet. But where to start? With a bit of imagination the beetle could, when curled up, sort of resemble a ripe date and, of course, there were palm trees in the location where I found it. Thus I keyed in “Palm Tree Weevil” in the hope that this would produce something! Guess what? – up came a load of information about the Red Palm Tree Weevil. I then altered the search name to “Red Palm Tree Weevil/photos” and, lo and behold, up came a set of four photos the one on the left of which could easily be an actual photo of my specimen! (If you search for this site you will see what I mean by ‘enormous weevil’.) It is a *Rhynchophorus ferrugineus* (Olivier) and is a serious pest of palm trees along the coasts of southern European countries from Greece to Portugal, having been introduced within palm trees from countries in North Africa. I gather that it is affecting many of the palm trees in the Spanish province of Malaga and it is clearly doing the same in the Algarve as, as my wife had mentioned



to me during our holiday, there were an awful lot of dead palm trees to be seen.

I have spoken to a Spanish friend of mine, who works in nature conservation, specialising in trees, in Andalucia and he confirms that the species is a very serious problem with, at the present time, no means of adequate control let alone eradication. At the time of writing he does not know of any infestation within the province of Sevilla, but it has reached the town of Campillos (which is about 20 kms from here) in Malaga province. I fear it will not be long before it strikes the local population of palms, including those that line both sides of the main road into our village from the south, passing the top of our street.

The final insect to mention is bug (Hemiptera) which is a large member of the Reduviidae. It was taken from a flower head enjoying its meal of a worker Honey Bee, *Apis mellifera*, which it had previously caught. This was found during the afternoon of 20 May on wasteground south of the village of Alcaria do Banho. It is possibly one of the species of *Peirates*, several of which have been recorded from the Algarve, but I need more time before putting a definite name to it.

Altogether an interesting if, at least as far as "the" cricket is concerned, a frustrating one. I have no plans to return to the Algarve in the future but then, as they say, you must never say never – so who knows? Should I ever go back I will certainly let you know how I get on.

References

- Putshkov, P and Moulet, P. 2009. Fauna de France 92 – *Hemipteres Reduviidae d'Europe Occidentale* pp 471-8. Federation Francais des Societes de Sciences Naturelles. Paris.
- Vinolas, A and Cartagena, M C. 2005. *Fauna de Tenebrionidae de la Peninsula Iberica y Baleares – Coleoptera Vol. 1. Lagriinae y Pimeliinae*. 428 pages. Argania edito S.C.P., Barcelona.





Monarch migration in Florida

by Dr Tim Gardiner (11826)

tim.gardiner@environment-agency.gov.uk

The first Monarch

Springtime in Florida is always a delight, with plenty of butterflies to observe on the wing. I was staying at Lake Berkley Drive in Kissimmee (near Orlando) on a family holiday, a pleasant resort with a large lake in the centre and swampy brush (scrub and woodland) surrounding it. While walking near the Lake on 22 March 2011 I saw a Monarch *Danaus plexippus* nectaring on the flowers of a garden shrub. The stunning butterfly was soon off on the spring breeze, excited I carried on to the Lake to see the alligators. On returning to the villa I went online to find out how the spring Monarch migration was faring. The Monarch moves north in spring (March) from its overwintering site in Mexico, ending up in North America (although this takes several generations) in May and June. In summer (August onwards) and autumn, Monarchs make the journey southwards back to overwintering sites in Mexico. There is some debate about what happens to Monarchs which migrate southwards into Florida in autumn. Clearly they are able to successfully overwinter in Florida, but it is not known whether they migrate northwards in the following spring like their Mexican counterparts. I submitted my sighting to the Journey North website (www.learner.org/jnorth.org/), an excellent online database of wildlife phenology. There are even animated maps of each year's Monarch migration which show how your sightings fit into the bigger picture for the whole of North America week by week.

Do Monarchs migrate northwards from Florida?

My sighting on 22 March was at latitude 28.29°N. Looking on the Journey North website, I found that the first sighting of an adult Monarch in Florida was on 20 February 2011 in Saint Petersburg (latitude 27.77°N) to the south of Kissimmee. Other sightings in Florida that pre-dated mine mainly came from a more southerly latitude (12 out of 18 sightings were to the south of my site). Therefore it was possible that my site was in the middle of the northward migration of Monarchs in Florida, the eventual goal being for butterflies to leave the peninsula and push further into North America.

The following day (23 March) I came across another Monarch butterfly at Disney's Animal Kingdom theme park which was slightly further north than my previous sighting (latitude 28.36°N). Evidence of a northwards migration perhaps, but I needed further sightings. On 4 April I observed



two Monarchs at Disney's Magic Kingdom theme park (latitude 28.42°N), again slightly further north. Checking the Journey North website, I found that after my initial sighting on 22 March, there were many observations to the north of my site in Florida. Indeed, if the sightings of Monarchs in Florida from the Journey North website are analysed for the period 23 March to 1 May, then 11 out of 17 sightings were at a more northerly latitude than my sighting on 22 March (latitude 28.29°N). It is not definitive evidence but it does suggest that some Monarchs were moving further north during March and April in Florida in 2011.

The Epcot Monarchs

After my initial sighting on 22 March, we visited Disney's Epcot theme park on 26 March. I saw that one attraction was the amusingly named 'Bambi's Butterfly House'. While wandering around Epcot, I came across ten Monarchs in a garden area where there was plenty of Scarlet Milkweed *Asclepias curassavica*, the larval foodplant. I was over the moon, I had come across a mass migration completely by accident. Excited I headed straight over to Bambi's House to explain my find to the resident butterfly expert. On reaching the attraction, I could see that it was less of a house, more a flimsily constructed tent! Suddenly a Monarch flew past, and then another, and another. Bambi was leaking butterflies; the Monarchs I saw on the other side of the park must have escaped from captivity! Therefore, I discounted any sightings from Epcot as being genuine migrants. Whether the escaped Monarchs went on to migrate northwards we will never know. The success of the butterfly garden was mainly due to the abundance of Scarlet Milkweed, the larval foodplant and a good nectar source to boot. Butterfly gardens in North America may provide 'pit stops' for Monarchs during migration, Scarlet Milkweed being the perfect lure to weary butterflies.

Eggs and larvae

Flushed with success at finding adult Monarchs, I searched for newly laid eggs on Scarlet Milkweed at Lake Berkley. Checking the underside of leaves on 27 March (four days after the adult sighting) I found one egg on Milkweed near to the original Monarch sighting. So it seemed that Monarchs must have successfully mated in the Lake Berkley area. I kept checking the Milkweed for several days, until on 30 March I observed a larva near to a hatched egg (which seemed like a miniature version of the egg pods in the film *Alien*), holes in the leaves showing its appetite. I had seen all life stages, bar the pupa, and I submitted the sightings to the Journey North website.



Exodus?

Keeping in regular touch with the Journey North website, it soon became clear that I was possibly in the middle of a northwards migration; I guess I had picked the right three weeks to visit Florida. There has been much debate over whether Florida is an evolutionary bottleneck with Monarchs living as self-contained populations without any northwards migration every spring. It is clear they overwinter in Florida, usually to the south of latitude 29°N. However, the 2011 spring migration clearly suggested that they were moving northwards in large numbers. To test this, I analysed all the 2011 spring migration data from the Journey North website for the first sighting of adults, larvae and eggs. As the data seemed far from a normal distribution in statistical terms, I decided to compare the first sighting date for adult, egg, and larva against their latitude using Spearman's Rank Correlation. To turn sighting date into a numeric value I converted each date into the day of the year (e.g. 1 = 1 January, 2 = 2 January and so on).

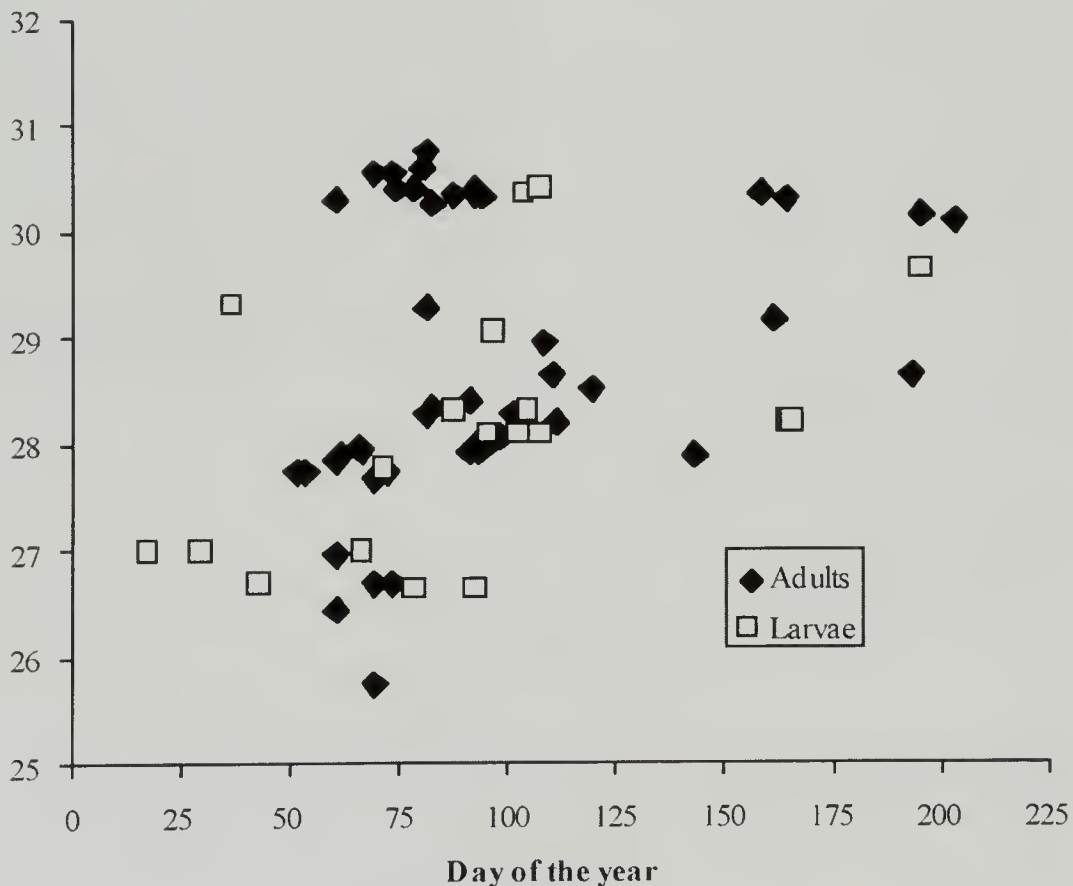


Figure 1. First sightings of the adult and larval stages of the Monarch as spring 2011 progressed (day 50 = 19 February, day 100 = 10 April, day 150 = 30 May).



The results were quite astounding, a significant correlation ($r_s = 0.38$, $P < 0.05$) was found between day of the year and latitude for adult Monarch sightings (e.g. as day of the year increased so did the latitude northwards of sightings, total adult sightings = 46) and for first larval observations ($r_s = 0.56$, $P < 0.05$, total larval sightings = 19). No significant correlation was detected for first observations of eggs. To visualise the significant northerly shift of adult and larval observations as spring migration progressed, see Fig. 1.

Caution must be exercised when evaluating data collected from public participation surveys despite its invaluable contribution to our understanding of species such as the Monarch. For example, the Journey North migration tracking project is not a systematic or standardised survey so observations can be very sporadic and obviously reflect the distribution of recorders. It was pure coincidence that I was on vacation (to use the correct term!) in Kissimmee at the time of the 2011 migration and was able to fill in an important missing link in the northwards spread of Monarchs in Florida.

Sweet home Alabama?

So it seems that Monarchs which overwintered in southern Florida might have migrated northwards toward Georgia and Alabama, appearing at more northerly latitudes as spring progressed. It is unlikely that the more northerly sightings were the result of overwintering butterflies appearing, as they are rarely seen north of Kissimmee where I was on vacation. Therefore they may have been on the move into northern Florida. A word of caution should be expressed due to the accidental releases of Monarchs from the Disney World theme parks, but these may well migrate with the others so it is probably not too much of a problem. The discovery of high numbers around Scarlet Milkweed at Epcot suggests that planting it in large patches really will pull in the butterflies. Planting Milkweed in gardens should provide 'pit stops' for migrating Monarchs looking for nectar and egg laying sites.

Acknowledgements

Thanks are due to the Journey North survey organisers for the use of their data in the statistical analysis.

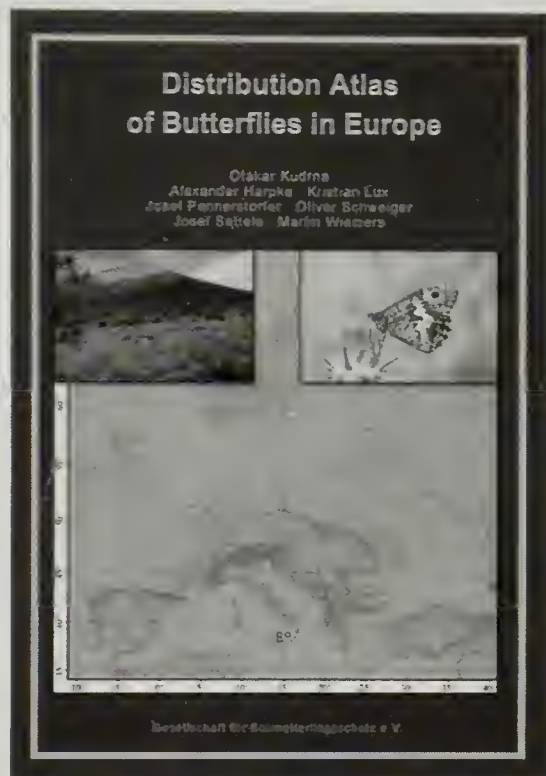




Book Reviews

Distribution Atlas of Butterflies in Europe

by Otakar Kudrna, Alexander Harpke, Kristian Lux, Josef Pennerstorfer, Oliver Schweiger, Josef Settele & Martin Wiemers. 576pp. 2011. Gesellschaft für Schmetterlingsschutz e.V. Halle. ISBN 978-3-938249-70-3. Hard back, 446 colour maps. 65 Euros.



Anyone with a deep interest in European butterflies needs access to an authoritative and up-to-date reference work covering distribution, taxonomy and conservation. Until now, those features have not been available within a single volume, and enthusiasts have used popular field guides with thumbnail distribution maps, outdated nomenclature and imprecise comments on rarity and conservation. The publication of the *Distribution Atlas of Butterflies in Europe* lays a fresh milestone, setting a common baseline for the future.

Field guides have their place of course; in a compact book they include photographs for identification and provide vernacular names. The *Distribution Atlas* does not. Its 576 pages weigh in at 1.5 kg, it features colour maps, but few photographs of butterflies, and it uses scientific nomenclature throughout. This is a volume for serious lepidopterists, for students or amateurs seeking to upgrade their knowledge, but it is not for everyone's rucksack. It is a multinational product, on a pan-European topic, written entirely in English.

The core of the atlas comprises mapping for all 441 species of butterfly found in Europe. Each map is about 20 times the size of the usual thumbnail, and takes up most of the A5 page. Red blobs show pre 1950 records, yellow 1951-1980, and green 1981 onwards. The background map shades mountains and indicates Lat & Long clearly. A box is provided to cover the Canaries, Madeira & the Azores. Each blob marks a "Basic Recording Field" of half a degree of longitude by half a degree of latitude - approx



50km square. This provides much better definition than has been published elsewhere, and is based on the most thoroughly evaluated data. Below each map are compact notes on the Zoogeography, Conservation and (where relevant) Taxonomy of each species. The conservation status codes are explained in the section ahead of the maps.

Specialists may wonder why only 441 species are covered, when the European Red List published in Swaay et al 2010 includes many more. Because the Atlas excludes elements of Russia and Kazakhstan included in the Red List, a number of species frequenting the Urals are not covered. Another difference is because some of the "species" in the Red List are treated as subspecies here. The authors' taxonomy is explained in Chapter 3: "Checklists of Species", and on those few maps where several subspecies are lumped together. Chapter 3 is extremely informative, describing the development of classification over the years, and the recent use of DNA techniques for discrimination. The taxonomy reallocates a number of species to genera other than those in longstanding use. Lists of Synonymy and excluded species are provided by way of explanation. The checklist is presented in Chapter 3 first systematically, then alphabetically, and it is the alphabetic sequence that is used for the map pages. A separate index at the back of the book covers the species names only, and makes it easy to find the right page from a known specific name.

Twenty pages of analysis and evaluation follow the species maps, with more maps showing coverage and density of recording, along with a country by country account of the very variable quality of records. Other maps useful for conservation purposes show species diversity for endemics, red listed and protected species. The final chapter, "Outlook" encourages participation in the next phase, MEB-3, and provides a standard recording sheet, which is a miniaturised tick list of the species arranged systematically. This is available as a download from the MEB website: <http://www.european-butterflies.ufz.de/index.php?de=17419> and will be useful to anyone with an interest in European butterflies. Those who participate in MEB will need the Gazeteer of 7300 reference localities (RLs) arranged alphabetically under countries. Recorders simply choose the closest locality for easy entry to the MEB database, avoiding the need for knowing precise Lat & Long.

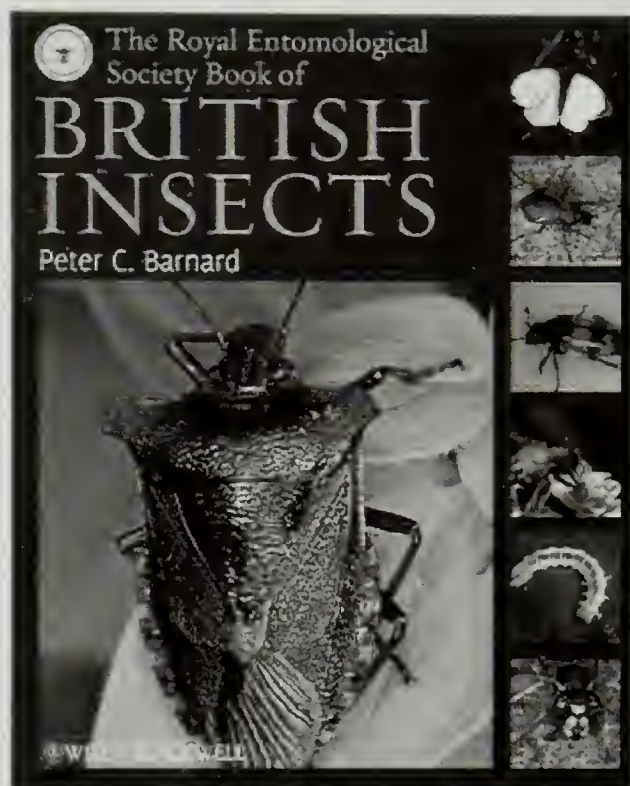
In summary then, the Distribution Atlas provides a great deal more than its superb distribution maps. For the specialist, it provides a wonderful source of reference on taxonomy, zoogeography and conservation value. For the amateur, it offers an authoritative nomenclature and opens a route to deeper study.

Rob Parker



The Royal Entomological Society Book of British Insects

by Peter C. Barnard, 2011. 383 pages; numerous colour illustrations. 280 x 225 mm hardback. Published by Wiley-Blackwell £39.95. ISBN 978-1-4443-3256-8. Also available in electronic format as an ePDF, ePUB or Mobi from Wiley Online Library.



Writing a concise and yet useful book covering all of the British insects is a daunting task. Way back in 1816, William Kirby and William Spence published the first part of their monumental work, *An introduction to entomology or the natural history of insects*. Although very much a text book in four volumes, it spawned many editions in two and one volume versions right up until 1876. Since then numerous books on British insects have appeared, varying from field guides such as the Collin's series (which also always

included various parts of Europe) to popular works whose value approached the "utterly useless" category. So why would one want a book covering all of the British insects? Students of entomology might find one useful if it had a suitably scientific approach; the amateur entomologist might find it interesting to track down, at least in general terms, information on, and what unfamiliar groups of insects might look like, and even be directed to further sources of information. Against this background, the reviewer was rather sceptical about the value of another book attempting to cover this vast topic. No longer! This is a cracking book, suitably scientific, but easy to read and absolutely packed with information.

After a general introduction giving an overview of the British fauna, and a table of the classification of British insects, the basic plan of the book is to devote a chapter to each of the 27 Orders of insects found in Britain, and within that chapter to cover the general characteristics of the order, in an interesting and readable narrative rather than a dry,



taxonomic treatment. There is a table of the higher classification of the Order to family level (also giving the number of genera and species in each family), notes on species that are of conservation interest, followed by a family by family account. For each family there is a brief narrative, copiously illustrated with colour photographs, references to other works on the identification of species within that family, and a list of subfamilies and genera within the family. Each chapter concludes with an extensive bibliography, including lists of useful websites for those wishing to learn more. There is an extensive index to genus level at the end.

It would appear there are 24,043 described British insects (or at least there were at the time of counting) distributed over 558 families. This compares with 72,260 species of 735 families in Europe and 1,011,740 species of 1015 families worldwide; this breakdown is continued for all the Orders represented in Britain, with Diptera and Hymenoptera level pegging at 7000 species each, Coleoptera third with 4000, then Lepidoptera (2570) and Hemiptera (1830) – and all this before the end of page 3 of the book! Of course, one can quibble over precise figures, but they give a good perspective on our native fauna. The text is, without exception, well written and informative and one can only admire a style that manages to combine such an amount of information with readability. All the illustrations are of living insects and are generally of high quality, but by far the most useful feature of the book is the extensive bibliography covering written and electronic sources of information. Such a comprehensive resource is invaluable to those seeking more information, particularly the website data, as although URLs can often change, they alert to the reader to the existence of web-based information.

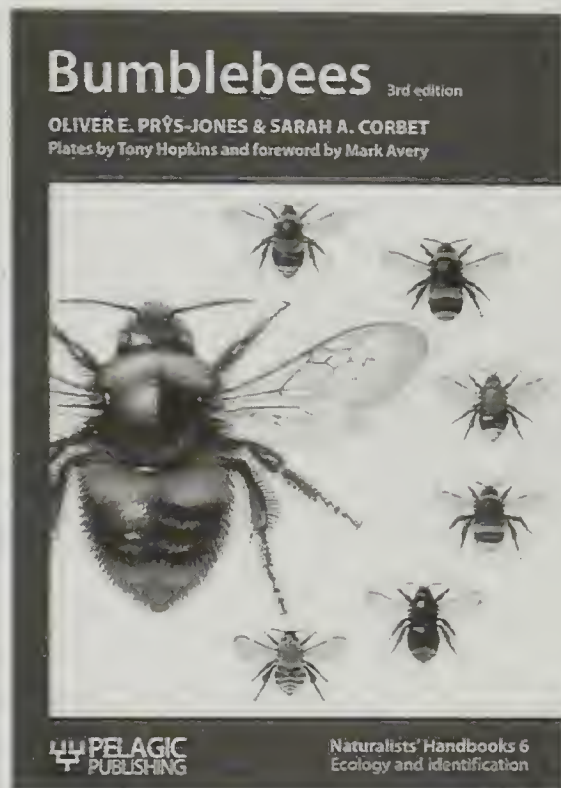
The author, Dr Peter Barnard, is a well-known figure at the Natural History Museum and is to be congratulated on producing such a comprehensive work, although it is a shame that there is no brief biography of the author included in the book. There are bound to be a few errors in a book of this nature, but the reviewer did not find them! The book itself is sturdy and well produced, and the only minor irritation is actually the Royal Entomological Society itself. The RES, to its credit, has sponsored the work and receives a number of plaudits in the text, but not only does it preface the book's title with its name, but it also, and rather unnecessarily, asserts its copyright at the beginning of every single chapter.

Paul Sokoloff



Naturalists' Handbook 6: Bumblebees (3rd Edition)

By Oliver E. Prys-Jones and Sarah A. Corbet, 2011. 144 pages; colour plates, numerous black and white illustrations. 216 x 138 mm paperback. Published by Pelagic Publishing Ltd £19.99. ISBN 978-1-907807-06-0.



This is the latest edition of an excellent book on Bumblebees. The first edition was published in 1987. A lot has happened to Britain's Bumblebees since then, so a new edition is opportune.

I must begin this review by declaring a fondness for the original edition. I would think that most AES members should be familiar with the Naturalists' Handbook format. They are guides to lesser studied groups (mainly invertebrates and lower plants). They are aimed at students or amateur naturalists. They are designed to provide the reader with the resources to study the particular group with the aim of making new

discoveries. There have been several publishers for the series, but, on the whole the books have been of a very high standard.

The present book summarises the current knowledge about distribution, natural history, life cycles, nest associates, foraging and conservation (a new chapter for this edition). There are then extensive keys to help identify queens, workers and males to species level. These are supplemented by a series of excellent colour plates by Tony Hopkins. The keys and plates have been updated to include *Bombus hypnorum*. The keys vary from very simple to more complex. However, even the more complex keys are relatively straightforward to use. Though they do require very close inspection of the specimen, ideally dead.

After the keys, the section which distinguishes this book from similar ones on Bumblebees is the chapter entitled 'Approaches to original work'. This has been slightly modified for the new edition, with updates mainly for the suppliers of equipment, etc.

The price has gone up for the latest edition, so is it worth it? Overall, I would say yes. The book has been thoroughly updated. This includes



new distribution maps for each species (generally rather depressing, except for *B. hypnorum*!). The layout has been modernised and is very clear. The advice is concise and practical. There is a new section on web-based information. Though, obviously this may go out of date as websites (or technology) changes.

If you are interested in Bumblebees you really should own this book. It takes you beyond the initial process of identification and the current state of knowledge. It stimulates you to add to that knowledge and to perform your own studies. It is sufficiently different from other Bumblebee books on the market to merit its place on your shelves. What is harder to decide is – should you invest in the new edition if you already possess an older edition? That probably depends on whether you regard £20 as a good price to pay for the book. The new additions have been highlighted in the review. Hopefully, this will help you to decide. I certainly feel it is an excellent update of a superb book!

Phil Wilkins





OBITUARY



426179-1001

Peter Taylor

(1926-2011)

b. 16 Jan. 1926, Luton, Bedfordshire.

d. 20 Oct. 2011, Kirdford, Sussex.

Peter Taylor (1926-2011), who was perhaps the longest serving member of the Amateur Entomologists' Society (he joined the AES in 1946), died peacefully in his sleep at his home in Kirdford, West Sussex on 20th October 2011, he was 85. Peter was born in Luton, Bedfordshire. On leaving school, he undertook a five-year apprenticeship as a mechanist and turner in the tool room of Commer Cars, Luton, taking evening classes to gain a National Certificate in Mechanical Engineering.

His spare time was spent plant and butterfly hunting on the Bedfordshire downs and elsewhere as an active member of the AES and of the Botanical Society of the British Isles (BSBI). His knowledge of the British flora was encyclopaedic, a rarity nowadays amongst Kew botanists. He made a considerable and beautifully prepared herbarium of British Plants, now at Kew, as well as a fine collection of butterflies.

Peter joined Kew, starting as a Temporary Assistant in the Herbarium in 1948. His eye for a plant, craftsmanship and attention to detail made him a stalwart of the Tropical African Section. As an Experimental Officer Peter Taylor was delegated to largely curatorial and technical duties and soon gained a remarkable knowledge, particularly of the herbaceous plants of the region.



In late 1955 he married Shirley Patten, a scientific assistant in the Kew Herbarium. Shortly afterwards, he undertook an eleven-month expedition to East Africa with Edgar Milne-Redhead, spending six months during the rainy season in the Songea District of Tanganyika (now Tanzania). They worked very long hours, carefully arranging plants in presses late into the night and up again at dawn mostly seven days a week.

It was not until Sir George Taylor left Kew that he was given long-overdue promotion to Principal Scientific Officer in 1972. George's nose had been put out, so it was said, because he kept being congratulated on Peter's work on *Utricularia*. Unfortunately he had been passed over to head the Fern Section and was assigned the Orchids, which he ran from 1972 until 1984. He published a popular book and many articles on orchids. He discharged his duties conscientiously but was glad when younger members of the section could take over this specialist group and he could devote more time to *Utricularia*. He made visits to Australia and America and examined vast numbers of specimens with visits and loans. He was awarded the Kew Medal in 1990 for his services to the Royal Botanic Gardens. He continued several years after his retirement in 1986 to hone his outstanding monographic revision of the genus, each of the 214 species illustrated with his own fine drawings. The appearance of his definitive monograph of *Utricularia* coincided with his retirement from Kew in 1986.

Peter fitted well into the tradition of great British naturalists. He was a fine entomologist and had an encyclopaedic knowledge of British Lepidoptera and other groups. He was a great friend of the respected entomologist Peter Cribb and a regular companion on bug-hunting trips from 1956 onwards. They enjoyed each other's company and shared a wacky sense of humour.

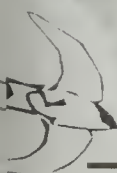
In retirement he settled in the West Sussex Weald where he purchased two woods that he restored to good condition through coppicing and cutting rides. In the course of the restoration, he made several new insect and plant records for the Vice-county. He was particularly pleased that the Purple Emperor butterfly (*Apatura iris*) bred in one of his woods thanks to his management of it.

Peter was an outstandingly good cabinetmaker and specialised in making harpsichords and clavichords to the most exacting standards of craftsmanship. His instruments have graced concert platforms, played by Margaret Hunt, the wife of his former colleague and old friend David Hunt.

Our sincere condolences go to his wife Shirley and to his children, Gilbert, Sarah and Jonathan.

The Great Bug Hunt 2012

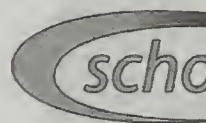
What will you find..?



Martin Rapley

Experience Science Live!

and

 **schoolscience.co.uk**

bring you an exciting competition that takes you outside to explore the bug world!

Simply identify a habitat, explore and discover the bugs that live there, draw them and record your findings – it's that simple!

And to help, we are offering a Guide to Land Invertebrates at half price!

You can carry out your bug survey at any time but your entry must reach us by June 20th 2012



"The Great Bug Hunt competition is a fun and fascinating way to introduce children to the weird and wacky world of mini beasts. So grab a bug net and awaken their sense of discovery and adventure in the great outdoors." **KATE HUMBLE**



"Just change your horizons, lower your perspective and the world all around you becomes just as exciting as the African plains or South American jungle! This is proper adventure; full dangerous predators, venom squirting monsters and cannibals but equally one filled with exquisite beauty and wonder. Start the adventure and it's one that'll last you a life time; It's so addictive I can guarantee once you've been on a bug hunt you will never ever be bored again." **NICK BAKER**

**To enter visit: www.thegreatbughunt.com
Go explore!**

Dipterists Handbook (Second Edition) edited by Peter Chandler (with contributions by 42 other authors)
 This Handbook provides a work of reference for everyone interested in the study of flies, both beginners and experienced dipterists.

As in the first edition great emphasis has been placed on the habitats and biological associations of flies. Among the authors are specialists in each field of study so it has again been possible to bring together a summary of the latest knowledge of all aspects of the biology of Diptera at the species level.

There are additional subjects not covered in the first edition including Forensic entomology and an explanation of the classification of Diptera and a bibliography of key works for the identification of both adults and larvae. Some specific habitat associations are covered in greater detail to reflect increased ecological knowledge of flies and the greater significance now being placed on some habitats in the conservation of Diptera. 525 pages with 32 colour plates and 45 text figures. **£ 46.66**

Members price £ 38.66

British Butterflies throughout the year by Peter May
 This new book from the AES describes the adults of different species of British butterflies, according to the time of year they appear on the wing. Nearly all the 60 British species are illustrated. Focussing on encouraging an interest in entomology among the young, and the young at heart, there is a helpful calendar of flight times and a useful checklist to help you keep track of your observations. **£ 5.42**

Members price £ 4.42

Preparing and maintaining a collection of Butterflies and Moths

by P. May and M. White. A practical manual detailing the various methods used to prepare specimens for a collection, from killing methods, setting the specimens and repairing damaged ones, to storage and preservation, including pest prevention and cure. 21 pages. 4 figures and 5 plates. (2006)

£ 5.42

Members price £ 4.42

The Hymenopterist's Handbook by Dr. C. Betts *et. al.*
 2nd edition dealing with the history of their families, classification and structures; natural history; studying, collecting, breeding, attracting and preserving Hymenoptera. Appendices include keys to the families. 214 pages with numerous tables, keys and figures (1986) **£ 11.23**

Members price £ 8.48

Revised Flight Tables for the Hymenoptera

Revised flight tables for the Hymenoptera giving, wherever possible, times, location, flower visits and some indication of distribution and abundance. 24 pages (1988) **£ 3.17**

Members price £ 2.92

A Coleopterist's Handbook

Edited by J.Cooter & M.V.L.Barclay The *Coleopterist's Handbook*, is now available as a fully revised and expanded fourth edition. Nomenclature has been brought inline with current

use, collecting/curatorial methods reflect best practice and plant/beetle and beetle/plant lists are included together. Recent additions to the British fauna, modern and traditional techniques are included. All advice and comment given in the book is based upon collective years of practical experience of both curatorial methods and field craft; beetle family chapters have each been written by an internationally recognised authority. 496 pages including 32 colour plates. **£ 50.90**

Members price £ 39.90

Host plants of British Beetles: A List of Recorded Associations

A list of a wide range of plants, in alphabetical order, together with the beetle species that have been recorded as being associated with them. 24 pages (1992) **£ 3.17**

Members price £ 2.92

A Silkmoth Rearer's Handbook by B.O.C. Gardiner

SPECIAL OFFER PRICE £ 8.61

No further discounted price available

Rearing and Studying Stick and Leaf-Insects by P. D. Brock
 Specifically intended for beginners, although it is also suitable for experienced Phasmid enthusiasts, it is one of the few guides to rearing that features the majority of the culture stocks available. 22 species in detail. The informative text is complimented by 8 colour plates, 14 black and white plates and 29 figures. (New edition, 2003) **£ 8.73**

Members price £ 7.73

The Study of Stoneflies, Mayflies and Caddisflies by T.T. Macan

A comprehensive guide to collecting and studying the biology and ecology of these aquatic insects. 44 pages, 10 figures and bibliography (1982) **£ 3.92**

Members price £ 3.42

Breeding the British Butterflies by P.W. Cribb

A practical handbook covering all aspects of butterfly breeding, including general techniques, equipment and hints on how to breed each of the British species. 60 pages, 6 figures, 5 plates, Revised (2001) **£ 6.42**

Members price £ 4.92

Practical Hints for the Field Lepidopterist by J.W. Tutt

Written at the turn of the century, this book has been reprinted because of its scarcity and value to students of Lepidoptera. It gives a complete month by month guide to which species and stages of macros and micros to look for and how to find them. Also contains a biological account of the early stages and how to keep, rear, photograph and describe them. 422 pages. Hardback. (Reprinted 1994). **£ 23.15**

Members price £ 18.15

An index to the modern names for use with J.W. Tutt's Practical Hints for the Field Lepidopterist by B.O.C. Gardiner

A valuable cross-reference guide between the scientific and English names used in the early 1900s and the present time. **£ 4.42**

Members price £3.92

- A Guide to Moth traps and their use** by R. Fry and P. Waring
The first sections deal with the measurement and properties of light leading into the types of lamp available and the electrical circuits needed to operate them. The next sections give details of the construction of the most popular traps used in the UK. The last half deals with the practical use of traps in the field including where and when to trap, limitations of traps and their relative performance. 68 pages, 21 figures, 15 plates (1996)
£ 7.42
Members price £ 5.92
- The Amazing World of Stick and Leaf Insects** by Paul D. Brock
A superb, comprehensive guide, for all those intrigued by these groups of insects. Topics covered include structure, fascinating facts, life history and development, defence behaviour, enemies, collecting, breeding (including trouble shooting), preserving, taxonomic studies, important collections in Museums etc. around the world and elaborate stories, beliefs and poems. Also outlines the major known species around the world on a regional basis. A section on Fossils is included. Includes a comprehensive glossary of the technical terms used in the description and classification of stick and leaf-insects. Hardback A5, 184 pages, 46 figures, 26 black and white plates and 40 pages of colour plates (containing 83 photographs and 4 drawings/paintings of insects and their habitats). (1999)£ 16.26
Members price £ 13.76
- Rearing Parasitic Hymenoptera** by M. Shaw
This booklet provides information on the parasitic Hymenoptera to enable successful studies to be made of this little understood group of the British insect fauna. Details are given on the general biology of parasitic wasps, rearing principles, efficient rearing practices and detailed methods of dealing with adult wasps. 52 pages, 4 colour plates (New edition – 2001) **£ 6.42**
Members price £ 4.92
- Larval Foodplants of the British Butterflies** by Peter May
A comprehensive compilation of the known larval foodplants of our native and immigrant butterflies. Also including "How to Encourage Butterflies to Live in Your Garden" by the late Peter Cribb 62 pages. (2003) **£ 7.92**
Members price £ 6.17
- The larger water beetles of the British Isles** by Peter Sutton
For those who love the spectacular larger water beetles of the British Isles, this is the publication that you have been waiting for! It is the only modern publication with colour illustrations of all of our aquatic coleopteran megafauna and it provides the most up-to-date distribution maps revealing their current distributions. Jam-packed with fascinating details of their life-histories, this book covers 11 species including the 6 native 'Great Diving Beetles' and the 'Silver Water Beetles'. It is also copiously illustrated with text figures and has much additional information including details of observed climate-induced range changes and the conservation measures required to ensure their continued survival. **£ 10.73**
Members price £ 8.23
- Glossary for the Young Lepidopterist** **£ 2.08**
6 pages, 2 figures. (1951) *Members price £ 2.08*
- A Label List of European Butterflies** **£ 2.92**
20 pages. (Revised 1981) *Members price £ 2.67*
- Some British Moths Reviewed**
Aid to the identification of some of the more difficult species. Reprinted from the *Amateur Entomologist* Vol. 5 (1941) and a *Guide to the Critical Species of Lepidoptera*, reprinted from *Entomologists' Gazette* 1969-72. 64 pages, 6 black and white plates, numerous figures (1985) **£ 4.17**
Members price £ 3.67
- Butterflies of Cyprus 1998 (Records of a years sightings)** by Eddie John
Observations of the 44 species of butterfly found on the island in 1998 including notes on each species and distribution maps. 46 pages (2000) **£ 4.92**
Members price £ 3.92
- Collecting Het.Bugs (Hemiptera: Heteroptera)** **£ 1.83**
12 pages (including 2 plates). (1946) *Members price £ 1.83*
- Collecting Clearwings**
12 pages (including 2 plates), 4 figures. (1946) **£ 1.83**
Members price £ 1.83
- Collecting Lacewings**
9 pages, 8 figures, 5 plates. (2nd edition 1976) **£ 2.42**
Members price £ 2.42
- An Amateur's Guide to the Study of the Genitalia of Lepidoptera**
16 pages, 15 figures. (1973) **£ 2.42** *Members price £ 2.17*
- Rearing the Hymenoptera Parasitica** **£ 2.42**
16 pages, 1 plate, 10 figures. (1974) *Members price £ 2.17*
- Rearing Crickets in the Classroom**
12 pages, 2 plates. (1986) (Reprinted 1993) **£ 2.08**
Members price £ 1.83
- Guidelines for Entomological Site Surveys**
Published on behalf of the JCCB1. 7 pages (2000) (Reprinted 2003) **£ 3.08**
Members price £ 2.83
- The Journal of the Entomological Exchange and Correspondence Club 1935-1936**
An AES Jubilee Publication. Fascinating reprint of the very first volume of the AES journal. 100 pages. **£ 3.42**
Members price £ 2.92

All the above publications sent post free to U.K. addresses. Outside U.K. please add 10% to order value for postage by surface mail. For postage by air-mail outside Europe please add 30% to order value. Please allow 28 days delivery.

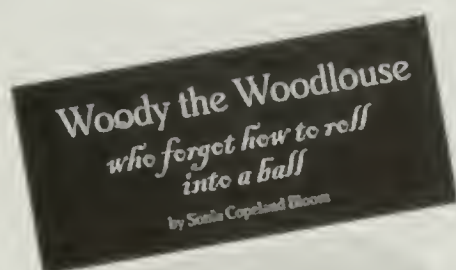
Please make all cheques/postal orders payable to 'AES Publications' and send to:
AES Publications, 1 Tower Hill, Brentwood, Essex CM14 4TA.
Telephone 01277 224610 • Fax: 01277 262815 • E-mail: aespublications@btconnect.com

A new book by Sonia Copeland Bloom



This is the third book in the *Tales and Truths* Series published by the AES, and is about Eddie the Earthworm and his friend Ellie, who turn a problem into a solution and save the day when an important worm gathering threatens to be a disaster!

These books consist of an engaging story about a minibeast supplemented by factual sections, including how to look after them as pets.



HOW TO ORDER

To order please send a cheque for the correct amount to:
Tales and Truths, PO Box 8774, London
SW7 5ZG
Or visit the AES online shop:
<http://shop.amentsoc.org>

Members' price £3.50 post free
(Non-members' price £5.50)



AES Membership Rates 2011

Membership of the Society runs from 1st January to 31st December each year. New members will receive all publications published during the year of enrolment subject to availability, except for those joining on or after 1st October.

Any member joining on or after 1st October will be deemed to have joined for the following year unless he or she specifically requests membership for the current year. If such a request is made, the publications already published that year will be sent with the enrolment confirmation letter and the remaining ones will be sent when they are published. A further membership subscription will be necessary for the following year.

If you have any queries about membership please contact us via the website, www.amentsoc.org or PO Box 8774, London SW7 5ZG

Individual Adult Membership

Membership sub-category	UK	Overseas
<i>Bulletin</i> only	£20.00	£25.00
<i>Entomologist's Record</i> only	£25.00	£30.00
<i>Bug Club Magazine</i> only	£20.00	£25.00

Individual Bug Club / Junior Membership

Membership sub-category	UK	Overseas
Junior under-18 (<i>Bug Club Magazine</i> only)	£12.00	£17.00
Junior aged 13-17 (<i>Bulletin</i> only)	£12.00	£17.00

Family or Combined Membership

Membership sub-category	UK	Overseas
<i>Bulletin</i> & <i>Entomologist's Record</i>	£40.00	£45.00
<i>Bulletin</i> & <i>Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record</i> & <i>Bug Club Magazine</i>	£35.00	£40.00
<i>Bulletin</i> , <i>Entomologist's Record</i> & <i>Bug Club Magazine</i>	£48.00	£53.00

Associate / Institutional Membership

Membership sub-category	UK	Overseas
<i>Bulletin</i> only	£20.00	£25.00
<i>Entomologist's Record</i> only	£50.00	£55.00
<i>Bug Club Magazine</i> only	£20.00	£25.00
<i>Bulletin</i> & <i>Entomologist's Record</i>	£65.00	£70.00
<i>Bulletin</i> & <i>Bug Club Magazine</i>	£28.00	£33.00
<i>Entomologist's Record</i> & <i>Bug Club Magazine</i>	£65.00	£70.00
<i>Bulletin</i> , <i>Entomologist's Record</i> & <i>Bug Club Magazine</i>	£75.00	£80.00

The Amateur Entomologists' Society

PO Box 8774, London SW7 5ZG

www.amentsoc.org

The Bulletin

of the Amateur Entomologists' Society

Volume 70 • Number 499

December 2011

CONTENTS

Editorial	209
Society News	210
Pitts, K. and Probert, M. A searchable archive of <i>Bulletin</i> contents listings – how you can help.....	210
Announcement. Great British Insects: National Insect Week Returns.....	214
Warren, P. Moths and Butterflies on Film	216
Holford, N. A Longhorn Beetle from Southern France.....	217
Caswell, W. The Mystery Solved	222
Wilkins, P. A Longhorn Beetle from the Scottish Highlands.....	222
John, E. Predation of an African Grass Blue <i>Zizeeria karsandra</i> (Moore, 1865) by the crab spider <i>Thomisus onustus</i> (Walckenaer, 1805) in Cyprus.....	224
Wilkins, P. and Wilkins, E. Photographing the Norfolk Hawker.....	225
Keen, D. A Very Early Crimson Speckled Footman, <i>Utetheisa pulchella</i> (Linnaeus).....	227
Partridge, R. Some late Orthoptera records for 2011 in VC29.....	228
Keen, D. Letter from Spain – 14th in a series – Return to Benafim, May 2011.....	231
Gardiner, T. Monarch migration in Florida	237
 Book Reviews	
<i>Distribution Atlas of Butterflies in Europe</i>	241
<i>The Royal Entomological Society Book of British Insects</i>	243
<i>Naturalists' Handbook 6: Bumblebees (3rd Edition)</i>	245
 Obituary	
Peter Taylor (1926-2011)	247

387A.

The Bulletin

of the Amateur Entomologists' Society

World list abbreviation
Bull. amat. Ent. Soc.
Registered Charity No. 267430

NATURAL
HISTORY MUSEUM

04 SEP 2012

PRESENTED
ENTOM LIBRARY

Index to

The Bulletin of the Amateur Entomologists' Society

Vol. 70 (2011)

Edited by Dr Phil Wilkins
and Paul Sokoloff

and to

Invertebrate Conservation News

Vols. 64, 65, 66 (2011)

Edited by David Lonsdale



Index compiled by Jacqueline Ruffle and David Lonsdale

Published by
The Amateur Entomologists' Society
P.O. Box 8774, London SW7 5ZG
ISSN 0266-836X

© The Amateur Entomologists' Society
All Rights Reserved



000174487

AUTHOR INDEX

Issue / Pages

A

AES

AES Annual Report for the year ended 31st December 2010.....	496: 87-96
AES membership benefits - A summary	498: 172-73
Amateur Entomologist Surveys and Citizen Science	494: 39
Big Society	498: 171
Calling all Newcastle entomologists!	494: 26
Data privacy statement.....	498: 174
Don McNamara	494: 32
Great British insects: National Insect Week returns	499: 214-15
Launch of an exciting new book series for younger readers!	494: 22
Malcolm Simpson	494: 40
Society Matters	495: 42-44
Society Matters	496: 85-87
Society Matters.....	497: 128-129
Society Matters.....	498: 171-74

B

Betts, Clive

The bioblitz experience	497: 146-53
-------------------------------	-------------

C

Caswell, Wesley

Mystery solved.....	499: 222
Rearing the Florida Bush Cricket (<i>Stilpnocblora coultoniana</i>)	494: 25-26
True story.....	497: 140

E

Edmondson, Roger

Southern Oak Bush-cricket (<i>Meconema meridionale</i> Costa, 1860), Orthoptera: Tettigoniidae.....	494: 15
---------------------------------------------------------------------------------------------------------	---------

F

Fremlin, Maria and Hendriks, Paul

Sugaring for stag beetles - different feeding strategies of <i>Lucanus cervus</i> and <i>Dorcus parallelipipedus</i>	495: 57-67
----------------------------------------------------------------------------------------------------------------------------	------------

G

Gardiner, Tim

Altitudinal limits of grasshoppers in the Cotswolds and Malvern Hills in relation to livestock grazing of hilltops	495: 77-81
-----------------------------------------------------------------------------------------------------------------------------	------------

Monarch migration in Florida	499: 237-40
Nature's epitaph	497: 156-57

George, Andrew (Ched)

Bees and wasps in a rural garden in Buckinghamshire	494: 27-31
-----------------------------------------------------------	------------

Godfrey, Helen

Calliphoridae (Diptera) - request for help	496: 122; 497: 158
--------------------------------------------------	--------------------

H

Haines, Daniel & Haines, Hilary

“New” Cyprus butterflies common in the North	496: 97-102
----------------------------------------------------	-------------

Harris, Elisabeth A.

New discovery of the rare hoverfly <i>Parbelophilus consimilis</i> , Dip., family Syrphidae in mid-Wales.....	
---------------------------------------------------------------------------------------------------------------	--

Harvey, Martin

iSpot and the AES.....	497: 159-60
------------------------	-------------

Hendriks, Paul see: Fremlin, Maria

Hodsman, Cath

How I became an entomological artist.....	494: 8-10
-------------------------------------------	-----------

Holford, Nick

A longhorn beetle from Southern France	499: 217-21
----------------------------------------------	-------------

J

Jansson, Nicklas

Attraction of stag beetles with artificial sap in Sweden	495: 51-56
----------------------------------------------------------------	------------

John, Eddie and Tamson, Sami

Predation of an African Grass Blue <i>Zizeeria karsandra</i> (Moore, 1865) by the crab spider <i>Thomisus onustus</i> (Walckenaer, 1805) in Cyprus	499: 224-25
----------------------------------------------------------------------------------------------------------------------------------------------------------	-------------

K

Keen, David

Letter from Spain: 10th in a series - Finding more dead insects	494: 33-35
Letter from Spain: 11th in a series - Local mantids, a further update & corrections.....	496: 109-111
Letter from Spain: 12th in a series - drilid larvae identified	497: 130-34
Letter from Spain: 13th in a series - Spanish winter butterflies: an update for 2010/11 with additional species.....	498: 200-05
Letter from Spain: 14th in a series - Return to Benafim, May 2011.....	499: 231-36
Very early Crimson Speckled Footman, <i>Utetheisa pulchella</i> (Linnaeus)...	497: 157; 499: 227

L

Lewis, Dafydd

Winter moths in the snow494: 23-24

Lewis, Dafydd s.a. Sokoloff, Paul

M

McCann, Frank

Chamomile Shark (*Cucullia chamomillae*) update497: 160

N

Newman, David

Some questions raised by butterfly observations in Central Brittany, July 2011 .497: 154-55

P

Partridge, Rob

Acleris cristana, *W B I Manley and The Insect Room*.....497: 137-40

Some late Orthoptera records for 2011 in VC29499: 228-30

Pitts, K. and Probert, M.

Searchable archive of Bulletin contents listings - how you can help499: 210-13

Probert, M. see: Pitts, K.

R

Ruffle, Jacqueline s.a.: Sokoloff, Paul

S

Smith, Andrew

Macro photography on a budget496: 119-121

Sokoloff, Paul

Another "Lady" entomologist from the past495: 45-47

So who was John Curtis?494: 11-14

Yet another "Lady" entomologist from the past498: 195-99

Sokoloff, Paul; Lewis, Dafydd; Ruffle, Jacqueline

The AES Annual Exhibition - October 2011498: 175-88

Steele, Tony

In search of the Piedmont Anomalous Blue, *Polyommatus humedasa*, and when disaster struck495: 48-50

Stockley, Martin

Photo corner: Eyed Hawkmoth.....497: 155

T

Tamson, Sami see: John, Eddie

W**Warren, Piers**

Moths and butterflies on film499: 216

Watson, Ken

Calling all Newcastle entomologists.....494: 26

Weir, James C.

On the apparent attraction of two members of the genus *Hepialus* (Lep.: Hepialidae) to tomato plants.....497: 141-45

Wilkins, Eleanor see: Wilkins, Phil

Wilkins, Phil

A longhorn beetle from the Scottish highlands.....499: 222-23

Wilkins, Phil

Grasshoppers in the Tyrol, 2010495: 68-70

Wilkins, Phil

Species focus: The Marmalade Hoverfly *Episyrphus balteatus* (Degeer, 1776), Diptera, Family Syrphidae.....497: 161-65

Wilkins, Phil and Wilkins, Eleanor

Photographing the Norfolk Hawker.....499: 225-26

Woolmer, John

The collectors494: 16-21

Goliath, Vanilla and Palm oil.....498: 189-94

The Poplar Admirals near Verdun495: 71-78

Sir Kenneth's White Admiral.....496: 112-118

Small Copper var. *caeruleapunctata*498: 194

Wootton, Robin; Pitts, Kieren and Field, Lyn

The Bug Club - A brief history496: 103-108

SUBJECT INDEX

Issue / Pages

Aberrations

AES

- Annual Report for the year ended 31st December 2010496: 87-96
Searchable archive of Bulletin contents listings - how you can help499: 209-13

Ants see: Hymenoptera

Arachnida

- Predation of an African Grass Blue *Zizeeria karsandra* (Moore, 1865) by the crab spider
Thomisus onustus (Walckenaer, 1805) in Cyprus499: 224-25

Art

- How I became an entomological artist.....494: 8-10

Austria

- Grasshoppers in the Tyrol, 2010495: 68-70

Bees see: Hymenoptera

Beetles see: Coleoptera

Behaviour

- Sugaring for stag beetles - different feeding strategies of *Lucanus cervus* and *Dorcus
paralellipipedus*.....495: 57-67

Biographies

- Another "Lady" entomologist from the past495: 45-47
So who was John Curtis?494: 11-14
Yet another "Lady" entomologist from the past498: 195-99

Book reviews

- Bumblebees (Naturalists' Handbook 6 - 3rd Ed.)499: 245-46
Butterflies: Messages from Psyche494: 35-36
Butterflies of North Cyprus.....497: 167
Butterfly year.....494: 38
Distribution atlas of butterflies in Europe.....499: 241-42
Extreme insects494: 36-37
Guide to the Hawkmoths of the Serra dos Orgaos, South-eastern Brazil498: 207-08
Launch of an exciting new book series for younger readers!.....494: 22
Leafcutter ants494: 37-38
Photographing the Microworld497: 166
Provisional atlas of the UK's larger moths.....498: 206-07
Royal Entomological Society book of British insects499: 243-44
Staphylinidae (rove beetles) of Britain and Ireland, Parts 7 & 8: Oxyporinae, Steninae,
Euaesthetinae, Pseudopsinae, Paederinae, Staphylininae.....496: 123-24
Wasps of Surrey.....496: 124-125; ICN 66: 9-11

Breeding	
Rearing the Florida Bush Cricket (<i>Stilpnocloria coulouiana</i>)	494: 25-26
Bug Club	
The Bug Club - A brief history	496: 103-108
Butterflies see: Lepidoptera	
Coleoptera	
Attraction of stag beetles with artificial sap in Sweden	495: 51-56
Letter from Spain: 12th in a series - drilid larvae identified	497: 130-34
Letter from Spain: 14th in a series - Return to Benafim, May 2011	499: 235-236
Longhorn beetle from Southern France	499: 217-21
Longhorn beetle from the Scottish Highlands	499: 222-23
More news about the Crucifix ground beetle in England	ICN 65: 11-12
Noble chafer rediscovered in Buckinghamshire	ICN 66: 9
Oil beetle survey in the UK	ICN 65: 13
Sugaring for stag beetles - different feeding strategies of <i>Lucanus cervus</i> and <i>Dorcus parallellipedus</i>	495: 57-67
Conservation	
A review of the impact of artificial light on invertebrates	ICN 66: 11-12
British Entomological Natural History Society meeting	ICN 65: 13
Butterfly Conservation Europe	ICN 64: 6-7
Hedgerow survey in the UK: an OPAL project	ICN 64: 10
Invasive "killer" shrimp in England and Wales	ICN 64: 10-12
Invertebrate 'takes revenge' on cars	ICN 65: 10-11
Juniper restoration at Porton Down, southern England	ICN 64: 12-13
More news about the Crucifix ground beetle in England	ICN 65: 11-12
More on neonicotinoid insecticides	ICN 64: 2-4
More on neonicotinoid insecticides	ICN 65: 8-10
More on ragwort misinformation in the UK	ICN 65: 4-6
National Planning Policy Framework (England)	ICN 66: 4-5
Noble chafer rediscovered in Buckinghamshire	ICN 66: 9
Oil beetle survey in the UK	ICN 65: 13
Proposed nuclear power plants in England	ICN 64: 12
Proposed sale of publicly owned forests in England	ICN 64: 7-9
Rare bees in south-east England	ICN 66: 7-9
Red Tape Challenge in the UK	ICN 65: 6-8
Review: Wasps of Surrey by David Baldock	ICN 66: 9-11
Solar panels as insect traps: mitigation of harm	ICN 64: 4-6
Thames Gateway: Buglife campaign	ICN 65: 12-13
The Killer Shrimp in the UK: an update	ICN 66: 5-7
Wildlife Law in England and Wales: review of protected species	ICN 66: 3-4
World Biodiversity in Crisis lectures	ICN 64: 13

Crickets see: Orthoptera

Crustacea

- Invasive "killer" shrimp in England and WalesICN 64: 10-12
The Killer Shrimp in the UK: an updateICN 66: 5-7

Cyprus

- Butterflies of North Cyprus (book review)497: 167
Predation of an African Grass Blue *Zizeeria karsandra* (Moore, 1865) by the crab spider
Thomisus onustus (Walckenaer, 1805) in Cyprus499: 224-25
"Rare" Cyprus butterflies common in the North.....496: 97-102

Diptera

- Calliphoridae - request for help496: 122; 497: 158
New discovery of the rare hoverfly *Parbelophilus consimilis*, Dip., family Syrphidae in
mid-Wales.....497: 135-36
Species focus: The Marmalade Hoverfly *Episyrphus balteatus* (Degeer, 1776), Diptera,
Family Syrphidae.....497: 161-65

Education

- Bioblitz experience497: 146-53
Great British insects: National Insect Week returns499: 214-215
Moths and butterflies on film499: 216
The Bug Club - A brief history496: 103-108

England

- Acleris cristana*, W B L Manley and *The Insect Room*497: 137-40
Altitudinal limits of grasshoppers in the Cotswolds and Malvern Hills in relation livestock
grazing of hilltops495: 77-81
Calling all Newcastle entomologists.....494: 28
Photographing the Norfolk Hawker.....499: 225-26
Some late Orthoptera records for 2011 in VC29499: 228-30

Exhibitions

- The AES Annual Exhibition - October 2011498: 175-88

France

- Longhorn beetle from Southern France.....499: 217-21
Some questions raised by butterfly observations in central Brittany, July 2011..497: 154-55

Garden entomology

- Bees and wasps in a rural garden in Buckinghamshire494: 27-31
On the apparent attraction of two members of the genus *Hepialus* (Lep.: Hepialidae) to
tomato plants.....497: 141-45

Grasshoppers see: Orthoptera

Hymenoptera

Bees and wasps in a rural garden in Buckinghamshire	494: 27-31
Bumblebees (Naturalists' Handbook 6 - 3rd Ed: book review)	499: 245-46
Leafcutter ants (book review)	494: 37-38
Rare bees in south-east England	ICN 66: 7-9
Wasps of Surrey (book review).....	496: 124-125; ICN 66: 9-11

Italy

In search of the Piedmont Anomalous Blue, <i>Polyommatus humedasa</i> e, and when disaster struck	495: 48-50
---------------------------------------------------------------------------------------------------------	------------

Lepidoptera

<i>Acleris cristana</i> , W B L Manley and <i>The Insect Room</i>	497: 137-40
Butterflies of North Cyprus (book review)	497: 167
Butterflies: Messages from Psyche (book review)	494: 35-36
Butterfly year (book review)	494: 38
Chamomile Shark (<i>Cucullia chamomillae</i>) update.....	497: 160
Distribution atlas of butterflies in Europe (book review).....	499: 241-42
Goliath, Vanilla and Palm oil.....	498: 189-94
Guide to the Hawkmoths of the Serra dos Orgaos, South-eastern Brazil	498: 207-08
In search of the Piedmont Anomalous Blue, <i>Polyommatus humedasa</i> e, and when disaster struck	495: 48-50
Letter from Spain: 13th in a series - Spanish winter butterflies: an update for 2010/11 with additional species.....	498: 200-05
Monarch migration in Florida.....	499: 237-40
Moths and butterflies on film	499: 216
Mystery solved.....	499: 222
On the apparent attraction of two members of the genus <i>Hepialus</i> (Lep.: Hepialidae) to tomato plants.....	497: 141-45
Photo corner: Eyed Hawkmoth.....	497: 155
Predation of an African Grass Blue <i>Zizeeria karsandra</i> (Moore, 1865) by the crab spider <i>Thomisus onustus</i> (Walckenaer, 1805) in Cyprus	499: 224-25
Provisional atlas of the UK's larger moths (book review).....	498: 206-07
"Rare" Cyprus butterflies common in the North.....	496: 97-102
Sir Kenneth's White Admiral.....	496: 112-118
Small Copper var <i>caeruleapunctata</i>	498: 194
The collectors	494: 16-21
The Poplar Admirals near Verdun	495: 71-76
True story.....	497: 140
Very early Crimson Speckled Footman, <i>Utetheisa pulchella</i> (Linnaeus).....	497: 157
Very early Crimson Speckled Footman, <i>Utetheisa pulchella</i> (Linnaeus).....	499: 227
Winter moths in the snow	494: 23-24

Mantodea

Letter from Spain: 11th in a series - Local mantids, a further update & corrections	496: 109-111
-------------------------------------------------------------------------------------------	--------------

Migration

Monarch migration in Florida.....	499: 237-40
-----------------------------------	-------------

Moths see: Lepidoptera

Obituaries

Don McNamara	494: 32
Derek Lott	ICN 66: 13
Malcolm Simpson	494: 40
Nature's epitaph - Phil Edwards (1969-2011)	497: 156-57
Peter Taylor (1926-2011)	499: 247-48

Odonata

Photographing the Norfolk Hawker	499: 225-26
----------------------------------------	-------------

Orthoptera

Altitudinal limits of grasshoppers in the Cotswolds and Malvern Hills in relation livestock grazing of hilltops	495: 77-81
Grasshoppers in the Tyrol, 2010	495: 68-70
Letter from Spain: 11th in a series - Local mantids, a further update & corrections	496: 109-111
Letter from Spain: 14th in a series - Return to Benafim, May 2011	499: 231-36
Rearing the Florida Bush Cricket (<i>Stilpnocblora coulouiana</i>)	494: 25-26
Some late Orthoptera records for 2011 in VC29	499: 228-30
Southern Oak Bush-cricket (<i>Meconema meridionale</i> Costa, 1860), Orthoptera: Tettigonidae	494: 15

Photography

Macro photography on a budget	496: 119-121
Moths and butterflies on film	499: 216
Photo corner: Eyed Hawkmoth	497: 155
Photo corner: Female Club-legged Grasshopper <i>Gomphoceras sibiricus</i>	495: 70
Photographing the Microworld (book review)	497: 166
Photographing the Norfolk Hawker	499: 225-26

Portugal

Letter from Spain: 14th in a series - Return to Benafim, May 2011	499: 231-36
-------------------------------------------------------------------------	-------------

Practical entomology

Sugaring for stag beetles - different feeding strategies of <i>Lucanus cervus</i> and <i>Dorcus paralellipedus</i>	495: 57-67
--------------------------------------------------------------------------------------------------------------------------	------------

Predation and scavenging

Letter from Spain: 12th in a series - drilid larvae identified	497: 130-34
Predation of an African Grass Blue <i>Zizeeria karsandra</i> (Moore, 1865) by the crab spider <i>Thomisus omistus</i> (Walckenaer, 1805) in Cyprus	499: 224-25
Sugaring for stag beetles - different feeding strategies of <i>Lucanus cervus</i> and <i>Dorcus paralellipedus</i>	495: 57-67

Scotland

Chamomile Shark (<i>Cucullia chamomillae</i>) update	497: 160
Longhorn beetle from the Scottish Highlands	499: 222-23

Spain

Letter from Spain: 10th in a series - Finding more dead insects494: 33-35

Letter from Spain: 11th in a series - local mantids, a further update and
corrections496: 109-11

Letter from Spain: 12th in a series - drilid larvae identified497: 130-34

Letter from Spain: 13th in a series - Spanish winter butterflies: an update for 2010/11 with
additional species.....498: 200-05

Very early Crimson Speckled Footman, *Utetheisa pulchella* (Linnaeus)...497: 157: 499: 227

Spiders see: Arachnida

Surveys and identification

Amateur Entomologist Surveys and Citizen Science494: 39

Bioblitz experience497: 146-53

iSpot and the AES.....497: 159-60

Sweden

Attraction of stag beetles with artificial sap in Sweden495: 51-56

USA

Monarch migration in Florida.....499: 237-40

Wales

New discovery of the rare hoverfly *Parbelophilus consimilis*, Dip., family Syrphidae in
mid-Wales.....497: 135-36

Wasps see: Hymenoptera

INDEX TO SCIENTIFIC NAMES:

Issue / Pages

A

<i>Acleris cristana</i>	497: 137-40
<i>Aeshna isosceles</i>	499: 225-26
<i>Alkmarmaria romijni</i>	ICN 66: 4
<i>Anax ephippus</i>	494: 34
<i>Andrena niveata</i>	ICN 66: 7
<i>Anthophora retusa</i>	ICN 66: 7
<i>Apis mellifera</i>	ICN 64: 3
<i>Araschnia levana</i>	497: 154-155
<i>Arctia villica angelica</i>	494: 33
<i>Argyresthia praecocella</i>	ICN 64: 13
<i>Aromia moschata</i>	494: 33-34
<i>Automeris</i> sp.....	497: 140; 499: 222

B

<i>Bombus humilis</i>	ICN 65: 12
<i>Bombus subterraneus</i>	ICN 66: 8
<i>Bombus sylvaticus</i>	ICN 65: 12

C

<i>Capnodis tenebrionis</i>	494: 33
<i>Cebrio superbus</i>	494: 33
<i>Centaurea scabiosa</i>	ICN 66: 7
<i>Charaxes jasius</i>	496: 97
<i>Chazara persephone</i>	496: 102
<i>Cheiracanthium inclusum</i>	ICN 65: 11
<i>Chrysura radialis</i>	494: 29
<i>Conocephalus discolor</i>	499: 228-30
<i>Corthippus brunneus</i>	495: 77-81
<i>Corthippus parallelus</i>	495: 80
<i>Cucullia chamomillae</i>	497: 160

D

<i>Danaus plexippus</i>	499: 233-34; 499: 237-40
<i>Decticus verrucivorus</i>	495: 69
<i>Dichomeris juniperella</i>	ICN 64: 13
<i>Dichomeris marginella</i>	ICN 64: 13
<i>Dikerogammarus villosus</i>	ICN 64: 10-12; ICN 66: 5-6
<i>Dorcus parallelipipedus</i>	495: 57-67
<i>Drilus mauritanicus</i>	497: 130-34

E

<i>Episyrphus balteatus</i>	497: 161-65
<i>Euproctis chrysorrhoea</i>	ICN 65: 13
<i>Gammarus insensibilis</i>	ICN 66: 4

G

<i>Gnorimus nobilis</i>	ICN 66: 9
<i>Gnorimus variabilis</i>	ICN 66: 9
<i>Gompbocerus sibiricus</i>	495: 68
<i>Gorytes laticinctus</i>	494: 29

H

<i>Halictus eurygnathus</i>	ICN 66: 7
<i>Hepialus fusconebulosa</i>	497: 141-45
<i>Hepialus fusconebulosa</i>	497: 144-45
<i>Hepialus sylvina</i>	497: 141-45
<i>Hypericum perforatum</i>	ICN 65: 5

I

<i>Iris oratoria</i>	496: 109; 111
----------------------------	---------------

J

<i>Juniperus communis</i>	ICN 64: 13
---------------------------------	------------

K

<i>Kirinia roxelana</i>	496: 99-100
-------------------------------	-------------

L

<i>Limenitis reducta</i>	497: 154; 495: 57-67
<i>Lucanus cervus</i>	495: 51-56

M

<i>Mantis religiosa religiosa</i>	496: 109; 110-111
<i>Meconema meridionale</i>	494: 15
<i>Metrioptera roeselii</i>	495: 80
<i>Miramella alpina</i>	495: 70
<i>Morimus asper</i>	499: 217-21
<i>Morimus funereus</i>	499: 217-21

N

<i>Nepa cinerea</i>	494: 34
---------------------------	---------

O

<i>Odynerus melanocephalus</i>	ICN 66: 10
<i>Omocestus viridulus</i>	495: 77-81
<i>Operophtora brumata</i>	494: 23-24
<i>Ophonus melletii</i>	ICN 65: 12

P

<i>Panagaeus cruxmajor</i>	ICN 65: 12-13
<i>Paragus albifrons</i>	ICN 65: 12
<i>Parhelophilus consimilis</i>	497: 135-36
<i>Philotes abencerragus</i>	498: 204-05
<i>Pholidoptera griseoaptera</i>	494: 79; 499: 228-230
<i>Pitiedia juniperina</i>	ICN 64: 13

<i>Plebicula escheri</i>	498: 203
<i>Polyommatus humedasae</i>	495: 48-56
<i>Pseudospinolia neglecta</i>	ICN 66: 10
<i>Rhyncophorus ferrugineus</i>	499: 235-236

S

<i>Saperda carcharias</i>	499: 222-23
<i>Scobius lusitanicus</i>	499: 231-232
<i>Senecio erucifolius</i>	ICN 65: 5
<i>Senecio jacobaea</i>	ICN 65: 4-5
<i>Smerinthus ocellata</i>	497: 155
<i>Sphodromantis viridis</i>	496: 109; 111
<i>Stilpnochlora coulouiana</i>	494: 25-26

T

<i>Thera cognata</i>	ICN 64: 13
<i>Thetidia smaragdaria</i>	ICN 66: 4
<i>Thomisus onustus</i>	499: 224-25

U

<i>Utetheisa pulchella</i>	497: 157; 499: 227
----------------------------------	--------------------

V

<i>Vanessa atalanta</i>	497: 154
-------------------------------	----------

Y

<i>Ypthima asterope</i>	496: 100
-------------------------------	----------

Z

<i>Zizeeria karsandra</i>	499: 224-25
<i>Zygaena lonicerae</i> ssp. <i>jocelynae</i>	ICN 66: 3
<i>Zygaena loti</i> ssp. <i>scotica</i>	ICN 66: 4

